



City of Palmdale

G e n e r a l P l a n

**Adopted January 25, 1993
Resolution 93-10**

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CITY OF PALMDALE

GENERAL PLAN

Administration Offices
38300 Sierra Highway
Palmdale, CA 93550
(805) 267-5100

Planning Department
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Palmdale, CA 93550
(805) 267-5200

Adopted by City Council
Resolution 93-10
January 25, 1993

CITY OF PALMDALE

GENERAL PLAN

Administration Office
2500 Oakridge Highway
Palmdale, CA 93550
(805) 261-5100

Planning Department
1000 S. Street East
Palmdale, CA 93550
(805) 261-5000

Approved by City Council
Resolution 11-11
January 14, 1988

City of Palmdale

City Council

James C. Ledford, Jr., Mayor
James A. Root, Mayor Pro Tem
Joseph P. "Joe" Davies, Councilmember
Terry Judge, Councilmember
David J. Myers, Councilmember

Planning Commission

John Mayfield, Chairman
Addison Thompson, Vice Chairman
Sandy Corrales, Commissioner
Jeanette Glozer, Commissioner
Steve Hofbauer, Commissioner

City of Palm Beach

City Council

James J. Ford, Mayor
James A. Howard, Deputy Mayor
Michael P. ...
John ...
David J. ...

Planning Commission

Jo ...
A ...
...
...
...

City Staff

City Manager: Robert W. Toone, Jr.
Assistant City Manager: Ron Creagh

General Plan Team January 1993

Molly Bogh	Planning Director
Bill Emlen	Principal Planner
Asoka Herath	Principal Planner
John Doughty	Assistant Planner
David Koontz	Associate Planner
Laurie Lile	Associate Planner
Becky Smith	Junior Planner
Mike Behen	Junior Planner
Sue Thompson	Deputy City Clerk
Lynn O'Brien	Secretary

Contributing Consultants

MBA	Environmental Impact Report, General Plan
DKS	Traffic Model/Circulation Element
Karin Palley & Associates	Housing Element

City Staff

City Manager, Robert W. Jones Jr.
Assistant City Manager, Paul C. Smith

General Plan Team January 1993

Planning Director
City Manager
City Council
City Clerk
City Treasurer
City Attorney
City Engineer
City Health Officer
City Police Chief
City Fire Chief
City Public Works Director
City Parks and Recreation Director
City Housing Director
City Social Services Director
City Department of Public Safety
City Department of Public Works
City Department of Parks and Recreation
City Department of Housing
City Department of Social Services

City Clerk
City Treasurer
City Attorney
City Engineer
City Health Officer
City Police Chief
City Fire Chief
City Public Works Director
City Parks and Recreation Director
City Housing Director
City Social Services Director
City Department of Public Safety
City Department of Public Works
City Department of Parks and Recreation
City Department of Housing
City Department of Social Services

Departmental Responsibilities

City Manager: Overall direction and coordination of city operations.
City Council: Policy making and budget approval.
City Clerk: Record keeping and official communications.

City Treasurer: Management of city funds.
City Attorney: Legal advice and representation.
City Engineer: Oversight of public works projects.

Participants in the Citizens Advisory Committee – 1987 through 1989

Tracey Bibb, Chairman

Pat Baal

Charles Battey

Dr. Larry Bosma

Richard Burriss

Carolyn Cotton

Joe Davies

Michael Graziano

Rebecca Hamill

Leroy Harrington

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Edward Kamper

Billie Kelly

Kirk Lazaruk

Jim Ledford

Christine Mann

Ton Mastin

Grace Murlock

Pete Peterson

Trudie Satterfield

Elaine Schneider

Jeff Storm

Fred Strasburg

Norm Titcher

Fred Trueblood

Jeanne Tucker

Fred Walter

Phil Wood

Callyn Yorke

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INTRODUCTION

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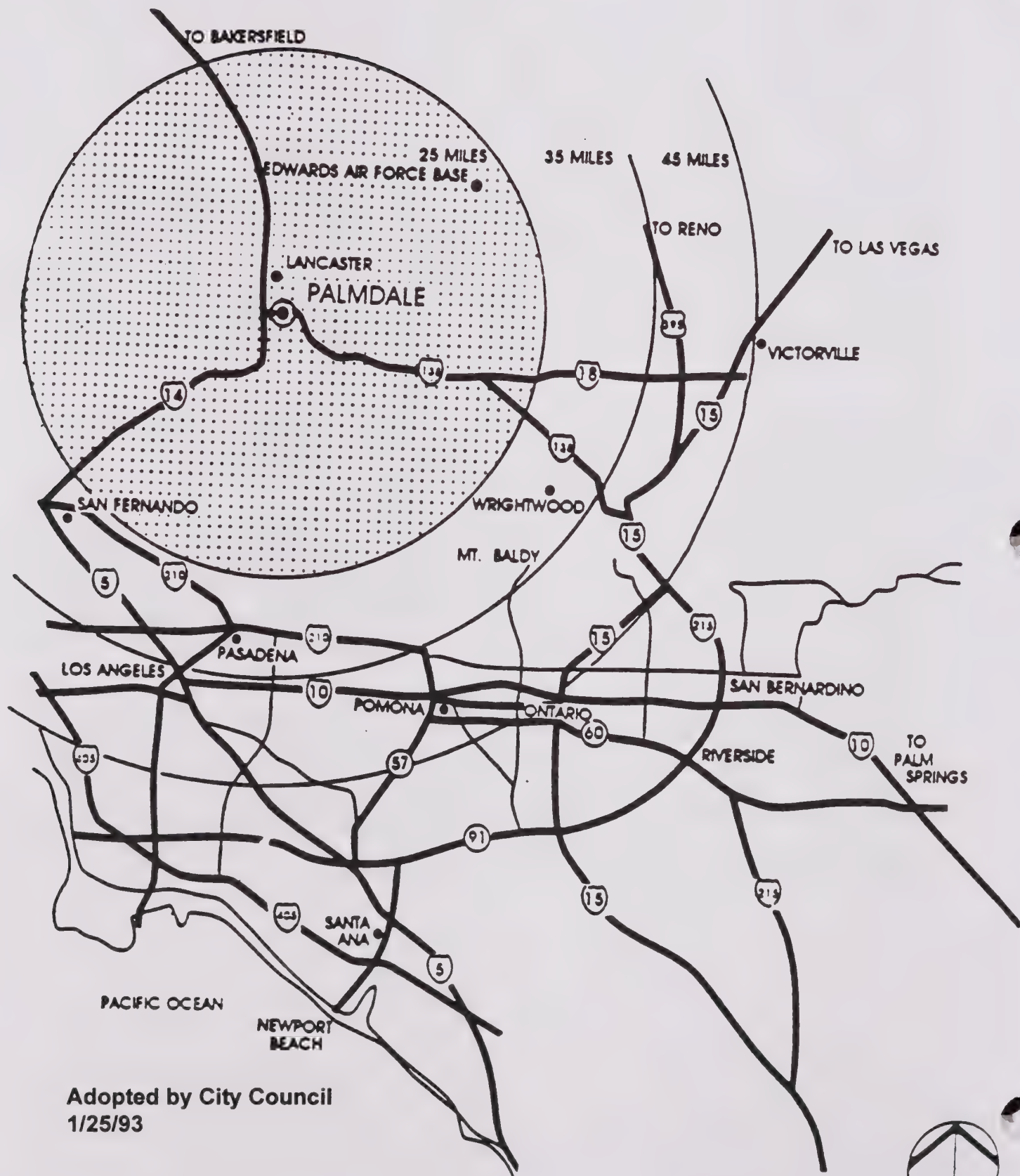
1. Location and Regional Setting

The City of Palmdale is located in the High Desert region of Los Angeles County, approximately 60 freeway miles north of downtown Los Angeles (see Exhibit I-1). Palmdale is one of two incorporated cities and several unincorporated communities within the Antelope Valley. The City is bordered by the City of Lancaster and unincorporated community of Quartz Hill to the north; unincorporated communities of Lake Los Angeles and Littlerock to the east; the unincorporated community of Acton to the south; and the unincorporated community of Leona Valley to the west (see Exhibit I-2).

The City of Palmdale Planning Area encompasses approximately 174 square miles within a transitional area between the foothills of the San Gabriel and Sierra Pelona Mountains and the Mojave Desert to the north and east (see Exhibit I-3). As a result, the Planning Area contains a variety of plant and animal communities, slope conditions, soil types and other physical characteristics. In general, the Planning Area slopes from south to north-northeast, with surface flows and subsurface flows trending away from the foothills to Rosamond Dry Lake. The major watercourses flowing through Palmdale are Amargosa Creek, Anaverde Creek, Little Rock Wash and Big Rock Wash. While foothill areas within and adjacent to the City contain significant slopes, a majority of the Planning Area is relatively flat.

The climate of Palmdale and the Antelope Valley is dominated by the region's Pacific high pressure system, which contributes to the area's hot, dry summers and relatively mild winters. The climate is characterized by its wide swings in temperature between day and night. Temperatures in the area average lows and highs of 71°F and 95°F, respectively, in the summer months and 36°F and 58°F, respectively in the winter months. Average annual precipitation is eight (8) inches.

Introduction



**Adopted by City Council
1/25/93**

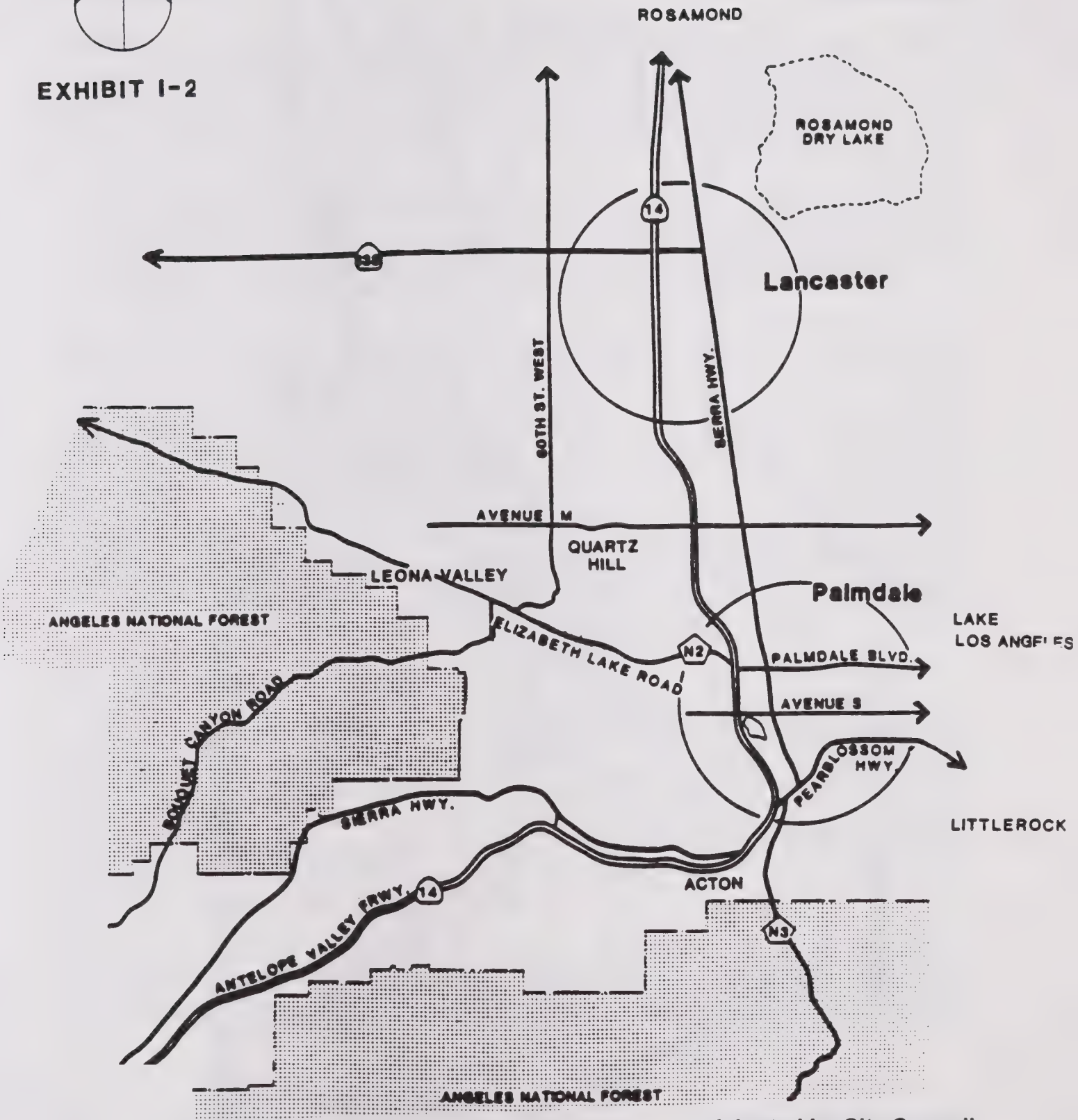


EXHIBIT I-1



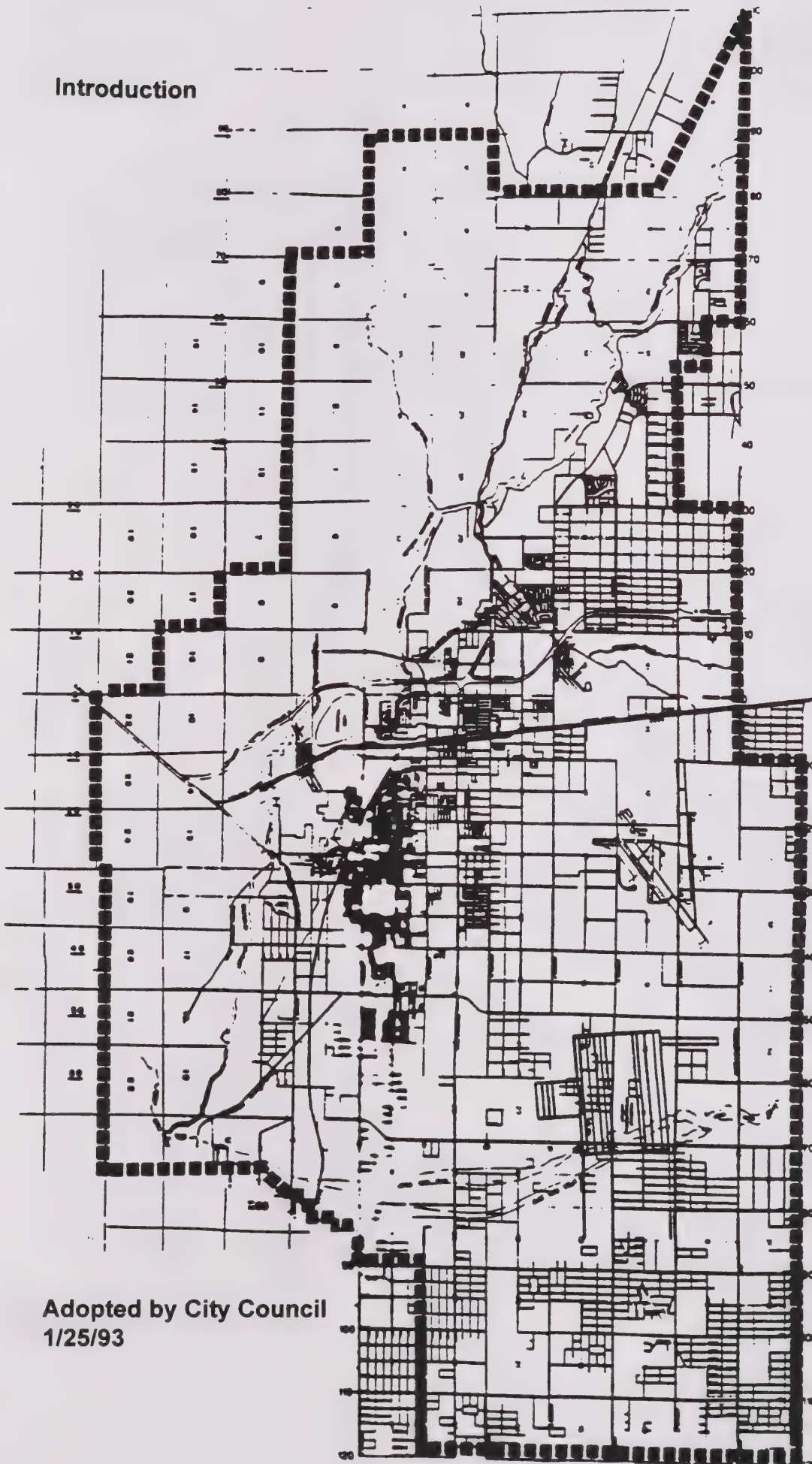
EXHIBIT I-2

Introduction



Introduction

PALMDALE PLANNING AREA



Adopted by City Council
1/25/93



EXHIBIT I-3

Introduction

Palmdale is sheltered from import of inter-basin pollution by mountain barriers extending on the north and south. Air quality is generally good; however, the City receives windborne air pollutants from the greater Los Angeles area via canyons, such as the Newhall Pass and Soledad Canyon, which lie to the south of the City.

The City of Palmdale is strategically located with respect to the Antelope Valley, San Joaquin Valley, Owens Valley and the San Fernando Valley/Los Angeles Basin. With direct access to State Route 14 (Antelope Valley Freeway) and Highway 138, as well as rail access via the Southern Pacific Transportation Company, Palmdale is readily accessible to commuters and future commercial or industrial users.

Being the most southerly community in the Antelope Valley, the City of Palmdale enjoys a locational advantage for homebuyers from the San Fernando Valley, Santa Clarita Valley, Los Angeles Basin and Ventura County. The Planning Area contains approximately 11 miles of freeway frontage along SR-14. A large portion of this frontage is undeveloped, giving the City ongoing opportunities to attract quality development. The Planning Area also contains 17,750 acres which has been designated as Palmdale Regional Airport, owned by the City of Los Angeles Department of Airports. More than 12,000 acres of vacant land exist adjacent to the airport site, allowing the City to attract related commercial/industrial uses. The Planning Area also contains a variety of housing types, including estate, equestrian, single family and multi-family residential development.

2. City and Sphere Boundaries

The City of Palmdale encompasses approximately 95 square miles and has been an adopted sphere of influence containing approximately 174 square miles. The Planning Area referred to in the General Plan generally extends east to 120th Street East, south to the alignment of Avenue W (Angeles National Forest) to the east of SR-14 and follows an irregular boundary along the Sierra Pelona ridgeline west of SR-14, north to Avenue M and L, west to 80th Street West south of the Ritter Ridge and 110th Street West north of Portal Ridge (see Exhibit I-3).

The City of Palmdale was incorporated on August 24, 1962. At incorporation, the City encompassed a total of 2.1 square miles. Since that time, numerous annexations and sphere of influence amendments have been approved by the County's Local Agency

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Formation Commission (LAFCO). The most recent sphere of influence amendment involved approximately 23,000 acres on the southern and western boundary of the City, including the Ritter Ranch Specific Plan area. There is currently a large annexation being processed to the southwest of the City (City Ranch) which, if approved, would add approximately 3 square miles to the City. A number of smaller areas, including ten "County Islands", are under consideration for annexation.

3. City Structure and Planning Functions

Palmdale is a "general law" city operating under the council-manager form of government. Four City Council members are elected at large for four year overlapping terms. The Mayor is elected at large for a two year term. The City Administrator is appointed by, and serves at the pleasure of, the City Council.

The Planning Commission is a five member advisory body, appointed by the City Council for two-year terms. The City's Planning Department provides support staff to the Planning Commission, under the direction of the Director of Planning. Development proposals are reviewed by the Development Advisory Board (DAB), comprised of representatives of the City's Planning, Building and Safety, and Public Works/Engineering Departments, the Los Angeles Fire Department, and the Los Angeles County Sheriff's Department.

The City of Palmdale currently provides general administrative, recreational, and library services, and performs most community development and public works functions. Fire prevention and protection are provided through the Los Angeles County Consolidated Fire Department. Police, road maintenance, and animal control services are provided under contract by Los Angeles County. The City is served by the Los Angeles County Sanitation District, Los Angeles County Waterworks District, Palmdale Water District and a number of local mutual water companies. These districts function independently of the City.

4. Planning Issues

During the last ten years, the City of Palmdale has evolved from a small established agricultural town to a thriving urbanized city of more than 80,000 residents. With this growth came the challenges of meeting increasing needs of the City and its residents.

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Over the last several years, numerous meetings and public hearings have been conducted by the City Council, Planning Commission, and Citizen's Advisory Committee (CAC). Additionally, a community attitude survey was conducted prior to initiation of the General Plan process. Through this process the following issues and opportunities have been identified to be addressed in the General Plan.

Existing Growth Patterns

The City of Palmdale occupies a unique position. It lies at the entrance to the Antelope Valley, a spectacular location with strong physical assets including hillsides that define the western, southern, and eastern edges of town and an expansive central core. The City has been in a development boom with a potential to be an example to the region in terms of growth patterns.

The physical expanse of land within the City and its potential for growth within that area are both an issue and an opportunity for the community. The planning process has helped shape community goals such as:

- Provision of adequate land in various use designations and development of policies to promote a stable and diversified economic base;
- Buffering of incompatible land uses;
- Revitalization of the historic downtown;
- Protection of sensitive ecological areas;
- Development of a community identity;
- Maintenance of a high quality of development;
- Provision of adequate infrastructure to support new development;
- Preservation of viewsheds and open space.

Issues on growth patterns and community goals are addressed in all the Elements of the General Plan.

Circulation Patterns

The City's circulation system has developed around a grid system in which major arterials are spaced every mile and minor arterials are spaced at half-mile intervals between the major arterials. This pattern provides a solid foundation for serving the

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community's mobility needs. Palmdale has the opportunity to develop a master circulation system before new development takes place. By establishing ultimate rights-of-way today, the problems associated with inadequate roads to meet future traffic demands can be mitigated.

The majority of arterial street segments currently operate at LOS C or better, indicating good traffic flow. However, substantial growth in all sectors of the community has created concerns among residents regarding the adequacy of the street system to accommodate future traffic volumes. These concerns will be addressed through development of the roadway network proposed in the Circulation Element. Components of this network are in place in the developed portions of the City; as the City continues to develop, the arterial roadway network will be expanded to those areas currently vacant. However, due to land use and topographic constraints, there are several arterials which will not be continuous, even at buildout of the General Plan, because they are interrupted by USAF Plant 42, the proposed regional airport, or steep terrain. This discontinuous street pattern may contribute to connectivity problems, making the circulation network less efficient.

As with many agricultural communities, Palmdale's growth occurred adjacent to the railroad and highways that carried livestock and agricultural products to distant markets. The Southern Pacific Railroad, Sierra Highway, and Pearblossom Highway, running at grade through the Planning Area, served that function. Although these major transportation links offer excellent opportunities to increase local commerce, their present design contributes to localized congestion. As development occurs, congestion at railroad crossings will likely increase. In addition, congestion on Palmdale Boulevard will increase until Caltrans' plan to reroute Highway 138 up to the vicinity of Avenue P-8 is implemented.

The City of Los Angeles Department of Airports is planning to develop Palmdale Regional Airport on 17,750 acres in the northeastern section of the Planning Area. When fully operational, the airport will handle up to 12 million air passengers annually. The airport will become a major employment base and will attract commercial and industrial uses and support services to the area. To accommodate future traffic around the facility, an east/west freeway linking the Airport to the Antelope Valley Freeway will be needed.

These issues are addressed in the Circulation Element of the General Plan.

Housing Opportunities

Rapid growth in the Antelope Valley has changed the composition of the City's population and housing stock. Affordable land has made Palmdale attractive to residential developers, who have constructed thousands of single family residences in the past few years. This extensive amount of affordable housing, providing a range of residential options and locations, has lured many former residents of the Los Angeles area to the Antelope Valley. Although single family residential housing opportunities abound locally, there are other housing issues that the City must address. These issues include:

- Provision of a wide range of housing types;
- Provision of low to moderate-income housing;
- Buffering of residential areas from incompatible uses;
- Rehabilitation of older housing stock; and
- Provision of adequate infrastructure to support residential uses.

Housing issues are addressed in the Housing Element of the General Plan.

Availability of Public Services and Utilities

Development and population increases have placed new demands on service providers, including the City, resulting in increased demands for new infrastructure, schools, parks, fire, and other related facilities. While the City and other agencies have worked to improve facilities and services to meet present and future needs, the General Plan will provide an action program to achieve this goal.

Rapid growth in the Planning Area has substantially increased the demand for water, which has been obtained from groundwater pumping and delivery of imported water from the State Water Project's California Aqueduct. Reliance on groundwater, even when supplemented by imported water, has caused overdrafting of the aquifer. This overdraft condition will continue to worsen in the future unless imported water is used to fill the gap between the safe yield from the aquifer and the local demand for water. Without assurance of adequate water resources, the City may not be able to maintain

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the rate of development experienced during the past decade. The continued availability of water to meet the demands of a growing population is an issue that must be addressed.

The contamination of groundwater from septic tanks, solid waste, and hazardous materials also raises a concern for public health and safety. Not all areas are served by a sewer system. Reliance on septic systems to dispose of sewage may pose potential health problems. Treatment plant capacities should keep pace with the growth and development of the area as the amount of sewage generation increases proportionately with population.

Floodplains are associated with drainage channels which cross the Planning Area. They include Little Rock Wash, Big Rock Wash, Amargosa Creek and Anaverde Creek. While creek channelization will control flood hazards, it decreases recharge of the aquifers and disturbs sensitive habitats. The use of drainage swales and compatible land uses around flood hazard areas could have less adverse impacts on the environment.

The lack of a storm drainage system has caused intermittent street flooding in certain areas of the City. Impermeable soils in hillside areas and increases in storm runoff within developed areas add to flooding in low-lying areas. Implementation of the City Drainage Master Plan is expected to mitigate flooding impacts within the City and downstream.

Present developments have occurred far from existing infrastructure and public services, resulting in the underutilization of existing utilities and services in developed areas and the costly extension of new infrastructure in outlying areas. Overlapping of service areas has also raised service costs and made coordination difficult.

These issues are addressed in the Land Use and Public Services Elements of the General Plan.

Preservation of Quality of Life

The character of the Planning Area is defined by its location. The high desert climate, vegetation and wildlife, nearby mountains, abundant land, and affordable housing have

drawn residents to the City of Palmdale. With so much open space, the City has the opportunity to plan a cohesive community, preserve scenic views, and maintain air quality. Uncontrolled development could eliminate these qualities and deprive the City of these resources.

Many residents moved to the community to enjoy the less congested atmosphere of the Antelope Valley. Many take pleasure in the keeping of horses and other livestock. The recent construction of new housing tracts has rapidly changed the appearance and function of Palmdale from a rural community to an urban center. Therefore, the balance between rural and urban lifestyle needs to be considered in the policies and programs of the General Plan.

The prevalence of vacant land allows for the future preservation and conservation of open space within the City. Significant open space areas and parkland must be preserved from premature development and urbanization. The rational management of natural resources and preservation of quality of life should recognize and retain the following significant resources:

- Hillside areas and viewsheds;
- Agricultural land;
- Sand and gravel resources;
- Sensitive ecological areas;
- Endangered plant and animal species.

Open space and resource conservation are addressed in the Land Use and Environmental Resources Elements of the General Plan.

Safety

The General Plan acknowledges a number of natural and man-made hazards which constrain development. To minimize these hazards, public safety will be promoted through educated land use decisions in order to avoid loss of life or major property damage. Emergency preparedness programs and procedures have been established and will continue to be updated and implemented, to ensure adequate response in case of a threat to public safety. Significant hazards which are addressed in this General Plan are described below.

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- The San Andreas Fault zone traverses the southwest portion of the Planning Area. Geologic hazards associated with seismic activity will be reduced by application of setbacks and building construction standards.
- Flooding associated with the natural drainage courses in the Planning Area, and geologic hazards associated with soil conditions or topography, present planning and structural considerations for development which are addressed in various policies.
- Aircraft crash zones associated with the USAF Plant 42 and the proposed regional airport are delineated and adjacent land uses regulated to minimize public safety hazards.
- Further development of United States Air Force (USAF) Plant 42 and other industrial uses will increase the potential for the use and handling of hazardous materials, and consequently, the accidental release of these materials. Appropriate policies are established to respond to these concerns.
- The increase in population brings with it an increase in criminal activity. The security of neighborhoods has become a priority of many residents.

These issues are addressed in the Land Use and Safety Elements of the General Plan.

Noise

The USAF Plant 42 is a major employment base in the Planning Area. At the same time, it is a source of aircraft noise. The Southern Pacific Railroad, the Antelope Valley Freeway, and several major arterial roadways also serve as major transportation corridors which generate noise impacts. Measures should be taken to reduce noise at their sources or to protect sensitive uses from noise impacts. This issue is addressed in the Land Use and Noise Elements of the General Plan.

Future Growth

With approximately 79 percent of the Planning Area vacant, buildout of the City could completely change the character of the community. In order to ensure that new development is an asset, the General Plan must address the issues of balanced growth, adequate infrastructure and public services, development standards, economic stability, and the preservation of scenic qualities and open space.

Rapid development in the past few years was influenced by the favorable economic climate. The effects of urbanization on physical, social, and economic resources of the City must be carefully evaluated, and development paced to avoid boom and bust cycles.

These concerns are addressed in all Elements of the General Plan.

Economic Development

Palmdale's economic base has historically been tied to the aerospace industry. Fluctuations in the world political landscape, economy and federal program funding have affected the aerospace industry throughout the country and particularly Southern California. At present, approximately 34 percent of residents of the City commute to jobs outside the Antelope Valley. A majority of these persons are employed within the San Fernando Valley or the Los Angeles Basin.

While increased development has led to a dramatic increase in retail sales and jobs within this sector, service and industrial sector jobs have not been as readily created.

Constraints to the expansion of employment-generating development include the lack of infrastructure and perceived limitations in inter- and intra-state access. The City of Palmdale must coordinate efforts to provide infrastructure, ensuring that new development continued to provide infrastructure to support itself without burdening existing residents. Continued efforts by the City through the economic development process and implementation of the General Plan will be necessary to continue expansion of the local economy.

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These issues point to a need for diversification and development of employment opportunities in the City. Thus, the General Plan addresses:

- Designation of land for a diversity of commercial and industrial land uses to improve the jobs/housing balance and create a more stable economic base.
- Enhancement of the downtown area.

This issue is further addressed in the Land Use Element of the General Plan.

B. Overview of the General Plan

1. Purpose of the General Plan

The General Plan for the City of Palmdale has been prepared pursuant to California Code Section 65300, which requires that each city and county within the state “adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency’s judgment bears relation to its planning”.

The General Plan serves as a foundation in making land use decisions based on goals and policies related to land use, transportation routes, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, noise impacts, safety issues and other related physical, social and economic development factors. In addition to serving as a basis for local decision making, the General Plan established a clear set of development rules for citizens, developers, decision makers, neighboring cities and counties, and provides the community with an opportunity to participate in the planning and decision making process.

The purpose of this General Plan is to comply with state requirements, and to provide the City with a comprehensive, long-range policy guideline for future development.

2. Scope of the General Plan

In accordance with California Government Code Section 65302, the General Plan must contain discussion in the following areas: a) land use; b) circulation; c) housing; d)

conservation; e) open space; f) noise; and g) safety. This General Plan contains elements addressing these areas, as well as a Public Service Element. In the future, it is the City's intent to adopt elements for Community Design and Parks, Recreation and Trails. The issues of conservation and open space have been combined in the City's Environmental Resources Element. Each of the elements contain diagrams and text setting forth goals, policies, actions and implementation measures for long-range physical development within the City's incorporated boundaries and sphere of influence areas.

Development within the incorporated boundaries of the City will be directly guided by the goals and policies contained in the General Plan. As specified in Government Code Section 65300, the General Plan must also address "any land outside its boundaries which...bears relation to its planning". Therefore, the General Plan has considered all land within the City's adopted sphere of influence, as well as a three (3) square mile area bisected by Godde Hill Road (see Exhibit I-3). The General Plan functions as a means of formally communicating with the City's concerns and issues are in regards to development proposals, master planning of infrastructure, pre-zoning sphere areas prior to annexation, preservation of open space and resource conservation lands, and other related planning issues which may impact the orderly growth of the City.

In developing goals and policies for the City's General Plan, regional issues pertaining to transportation, housing, open space, infrastructure, coordination of emergency services, and other physical, social and economic concerns were considered.

3. Development of the General Plan

The City's General Plan has evolved from numerous studies and public hearings involving a Citizen Advisory Committee, the Planning Commission and the City Council. All issues and concerns identified during the public hearing process were evaluated and addressed. This input provided valuable assistance to staff and consultants in refining the document.

4. Citizen Input

California Government Code Section 65351 states that during preparation of the General Plan "...opportunities for the involvement of citizens...and other community

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groups" be provided "through public hearings and any other means the city...deems appropriate".

In accordance with state law and the recognition of the importance and value of citizen involvement, the City has created numerous opportunities for citizen participation throughout the General Plan development process.

As noted above, a 21-member Citizen Advisory Committee was established to review the General Plan Elements. The CAC met regularly from 1988 to 1989. Community ideas were exchanged and concerns and issues were identified and addressed during a number of advertised public meetings. Meeting dates, times and locations were published in the Antelope Valley Press, and notices were posted in three public areas in the City.

Between 1990 and 1991, the Planning Commission held 23 public meetings on the General Plan. In 1991, the planning process was interrupted due to the City's attention to other development issues, but public meetings before the Planning Commission resumed in March 1992. Earlier drafts of the General Plan maps and text were revised to address existing conditions in 1992, and the traffic model was run again based on revised land use assumptions. Between March and October, 1992 the Planning Commission held a total of 12 public meetings to review the final draft General Plan, providing the community with an avenue for expressing ideas and concerns relating to the General Plan. The City Council began its formal review of the General Plan on November 19, 1992 and concluded a series of 7 hearings on January 25, 1993, on which date the Council certified the EIR and adopted the General Plan.

5. Adoption of the General Plan

On January 25, 1993, the City Council of the City of Palmdale adopted Resolution No. 93-10, certifying the Environmental Impact Report and approving the General Plan.

6. Consistency of General Plan Elements

The General Plan has been prepared in accordance with California Government Code Section 65300.5, which specifies that the "General Plan and elements...comprise an integrated, internally consistent and compatible statement of policies". Consistency

among the Land Use, Circulation, Housing, Environmental Resources, Safety, Noise, and Public Service Elements of the General Plan is reflected in the goals, policies, actions, implementation programs and maps contained therein.

7. Consistency with Zoning

Current zoning within the City may not be in conformance with the objectives, policies, land uses, and programs specified in the City's General Plan. Therefore, it is the intent of the City to prepare a revised zoning map and Zoning Ordinance for the City of Palmdale, which will be consistent with the General Plan's goals and policies.

8. Amending the General Plan

It is the intent of this General Plan to provide a flexible planning tool for the community to utilize in achieving its long-term goals. The General Plan must respond to changing community needs, values, and environmental conditions to ensure continued effectiveness of the plan. Monitoring of the Plan will be accomplished through annual reviews that will help in determining when revisions are necessary. State law permits up to four amendments a year; however, major updates to the plan will be undertaken every five to seven years to reflect new conditions, local attitudes and policy changes.

9. Implementing the General Plan

As specified in each of the following elements, implementation of the General Plan will occur in many forms. Through formulation and adoption of land use policies and regulations such as the City Zoning Ordinance, through the development review process conducted by the Development Advisory Board and the Planning Commission, through adoption of ordinances, specific plans, financing programs, enforcement actions, and other means, the City will implement the goals and policies contained in the Plan. In order to ensure implementation and provide a measure of compliance with the Plan's directives, each element outlines specific actions to be completed by the City. When the General Plan is updated—at five to seven year intervals—it is intended that these actions be reviewed to ascertain the City's success in meeting General Plan goals.



Land Use Element

SECTION 1: INTRODUCTION

The Land Use Element of the General Plan contains the City's blueprint for long-range growth and development. The goals, objectives and policies contained within this element address the significant issues facing the community through a variety of land use planning strategies. The quality and quantity of future residential, commercial, industrial development and public facilities are addressed, along with mineral resources, economic development and open space issues. The goals, objectives and policies of each of the other elements of the General Plan have been integrated here to the extent that they affect land use.

The Land Use Element addresses the rapid growth and resulting development patterns which have occurred in Palmdale, and establishes a framework for focusing future growth in a logical manner. The distribution of land uses by type and intensity is addressed. The Land Use Element also identifies existing and potential development opportunities and constraints. Special land use planning issues for Palmdale which are addressed in this Element include the existence of the Air Force Plant 42 flight test facility within the Planning Area and its ongoing importance as an employment center, plans for a new regional airport, regionally significant sand and gravel resources and the presence of the San Andreas fault system within the Planning Area.

Specifically, the Land Use Element serves the following purposes:

1. The Land Use Element informs the public of the City's land use goals, objectives, and policies for long term development. It serves as a foundation for private, as well as public decision making.
2. The Land Use Element serves as a guide for the day-to-day operational decisions of City staff. It sets forth policies for dealing with land use issues and responding to opportunities for growth and development.
3. The Land Use Element establishes land use classifications for land within the City and the standards of density and intensity for each classification. It also outlines standards and programs that implement the stated goals.
4. As a state-mandated element, it fulfills one of the requirements of the State Planning and Zoning Law, Government Code Section 65000 et seq.

SECTION 2: GOALS, OBJECTIVES AND POLICIES

GOAL L1: Create a vision for long-term growth and development in the City of Palmdale which provides for orderly, functional patterns of land uses within urban areas, a unified and coherent urban form, and a high quality of life for its residents.

Objective L1.1: Establish a blueprint for the physical form and development of the City.

Policy L1.1.1: Through adoption of the Land Use Map, direct future growth to areas which can accommodate development based upon topography, environmental factors, availability of infrastructure, and/or comprehensive planning. These areas include the following:

- a. Vacant land within urbanized areas (infill lots), where backbone infrastructure is available or planned for;
- b. Areas governed by adopted Specific Plans;
- c. Areas in which infrastructure master planning has occurred.

Policy L1.1.2: Provide incentives to promote infill development, in order to foster more cohesive neighborhoods, maximize use of infrastructure, consolidate development patterns and enhance community appearance.

Policy L1.1.3: Respond to the rapidly changing needs of the City by reviewing the General Plan every five to seven years, and updating each Element as needed.

Policy L1.1.4: In considering requests to amend the Land Use Map, discourage proposals for development requiring urban services in those areas which are functionally separated from developed portions of the City by lack of infrastructure, expanses of vacant land, significant topographic or jurisdictional barriers, or other similar constraints.

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Objective L1.2: Implement annexation policies that promote logical and orderly boundaries, respond to community concerns, and minimize fiscal impacts to the City.

Policy L1.2.1: Focus planning efforts within the present sphere of influence during the planning period.

Policy L1.2.2: Seek to negotiate equitable property tax transfers with the County of Los Angeles for areas proposed for annexation, to ensure cost recovery to the City for increased municipal services to these areas.

Policy L1.2.3: Consider the provisions of adopted Memorandums of Understanding in establishing land use regulations for areas to be annexed.

Policy L1.2.4: Encourage Los Angeles County to apply City of Palmdale land use policies and standards to development proposals within the City's sphere of influence.

Policy L1.2.5: Evaluate future annexations to consider the following criteria:

a. No annexation should occur unless:

1. An equitable property tax transfer can be negotiated with the County to ensure cost recovery to the City for providing municipal services to these areas; or

2. The area to be annexed would provide benefits including but not limited to employment opportunities, increased jobs-housing balance, recreational amenities or other elements having a citywide benefit which outweigh the potential long term fiscal costs; or

3. Sales tax or other revenue sources resulting from annexation will adequately offset service costs to the City, as determined by the City Council.

b. Evaluation of annexation proposals should fully consider all costs, including capital facilities, maintenance and administration costs, associated with each proposal. These costs may include but are not limited to upgrading, retrofitting and maintenance of infrastructure facilities, including but not limited to sewer, water,

streets, street lighting and storm drainage; code enforcement; housing rehabilitation needs; provision of social and recreational programs; law enforcement, fire protection and emergency services; and City administration.

c. No annexation of largely undeveloped areas should occur unless adequate master planning of infrastructure has been completed to the satisfaction of the City.

d. The annexation of land to the City shall represent a logical expansion of City boundaries and provide for a planned, orderly and efficient pattern of urban development. Annexation requests shall not be approved where the City Council finds that such expansion of the City's boundary may be detrimental to the value and development potential of property within the existing municipal boundaries.

e. A primary function of the City of Palmdale is to provide municipal services to support urban development. Therefore, future annexations should focus on those areas which are planned for and represent a logical extension of urban services and development. Servicing of non-urban areas should remain a function of the County.

f. The City should focus annexation efforts on "County islands" and other areas which are infill in nature, where affected residents and property owners are generally supportive of such annexation efforts, and should give priority to annexing these islands over further expansion into outlying areas.

g. Annexation of any area which is within the boundaries of an adopted community standards district shall consider and respect the provisions of such standards in any future land use approvals.

Objective L1.3: Ensure compatibility between land uses which have different functions, requirements and impacts.

Policy L1.3.1: On the Land Use Map, designate land uses in consideration of topography, environmental constraints, availability of infrastructure, and intensity of adjacent uses.

Policy L1.3.2: Adopt standards for transition areas between potentially incompatible uses.

Policy L1.3.3: Through the development review process, evaluate proposals with respect to their impacts on adjacent properties, including their impacts on existing uses of those properties, and require that project designs employ appropriate techniques to increase compatibility between uses.

Objective L1.4: Adopt land use policies which minimize exposure of residents to natural hazards, protect natural resources, and utilize land with limited development potential for open space and recreational uses where feasible.

Policy L1.4.1: Establish the following transitional standards between Mineral Resource Extraction designations and less intensive uses, in order to protect residents from noise and dust while preserving the availability of mineral resources:

- a. Where feasible, encourage a transition of uses between quarry operations and less intensive uses.
- b. Separate residential neighborhoods from mineral extraction zones by public streets, setbacks, berms, landscaping, green belts, trail systems, or other similar buffers or combinations thereof.
- c. When land designated for less intensive uses abuts mineral extraction areas, the responsibility for providing adequate buffers should be borne equitably by both quarry operators and adjacent developers, where feasible based upon existing conditions and existing approvals.

Policy L1.4.2: Establish the following standards in and adjacent to Alquist-Priolo Earthquake Fault zones and active fault zones, in order to protect residents, property and infrastructure systems from damage by seismic activity: *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

- a. Restrict development of habitable structures in these zones in accordance with requirements of State law.
- b. Establish a maximum permitted density within all land between the outer boundaries of the Alquist-Priolo Earthquake Fault Zone of three (3) dwelling units per acre (gross) within residentially-designated land within the project site, except where the Land Use Map indicates lower densities in these areas. This policy

specifically excludes any non-residential land uses within the project site from the calculation of gross densities. (*General Plan Amendment 96-4, adopted by City Council April 9, 1997.*)

c. Require placement of roads, utilities and other infrastructure to be located outside of active fault zones, where feasible.

Policy L1.4.3: Establish the following standards for development in hillside areas:

a. Development in hillside areas should minimize grading, conform to natural topography, preserve ridgelines and exhibit sensitivity to natural landforms.

b. Development should be restricted on natural slopes of fifty percent and greater.

c. Visually prominent ridges and hillsides should be retained in a natural condition.

d. Flexibility in land use regulations may be permitted when it can be demonstrated that such flexibility will meet hillside management objectives.

Policy L1.4.4: Establish the following land use policies adjacent to airport uses:

a. On the Land Use Plan, designate uses adjacent to airport uses which minimize land use conflicts with future expansion of airport operations.

b. When considering land use proposals adjacent to airport uses, evaluate such proposals with respect to the policies developed by the Joint Land Use Committee which have been incorporated into the Noise and Safety Elements.

Objective L1.5: Identify areas within the City which, through deterioration of structures, high vacancy rates, vandalism, or health and safety concerns, merit special attention, and develop programs to revitalize these areas.

Policy L1.5.1: Develop a coordinated effort between City departments and agencies administering the municipal, zoning and

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building codes, law enforcement, fire prevention, public health, housing and social services, to upgrade blighted areas within the City.

GOAL L2: Adopt land use and development policies which encourage growth and diversification of the City's economic base.

Objective L2.1: Promote creation and retention of businesses within the City, to increase employment opportunities within the Antelope Valley.

Policy L2.1.1: Promote establishment of incentives for new industrial development in Palmdale through all available programs, including local, state and federal programs.

Policy L2.1.2: Adopt comprehensive land use documents to designate areas for business and industrial users, such as specific plans, which will simplify environmental and development review processes for new businesses and ensure coordinated infrastructure planning.

Policy L2.1.3: Adopt strategies to provide opportunities for a wide range of business needs, including start up, expansion, and relocation.

Policy L2.1.4: Cooperate with local financial institutions through the Community Reinvestment Act to facilitate establishment and retention of new businesses in Palmdale.

Policy L2.1.5: Promote opportunities for transportation-related industries which utilize air, rail and highway facilities, specifically with respect to freight transfer and distribution facilities.

Policy L2.1.6: Consider the jobs/housing balance in evaluating new development proposals.

Policy L2.1.7: Support new technologies which may result in increased business opportunities within the City.

Policy L2.1.8: Support creation and adoption of a separate air quality management plan for the Southeast Desert Air Basin portion of the South Coast Air Quality Management District.

Objective L2.2: Provide assistance to business owners and users through all available means, including education, outreach, coordination and financing.

Policy L2.2.1: Make information available to business owners on demographic and economic conditions and current development within the City, to assist them in making business decisions.

Policy L2.2.2: Work towards establishment of a geographic information data base and mapping system within the City to increase the amount of information available to the public on zoning, land use and infrastructure planning, assessments, and other pertinent data.

Policy L2.2.3: Provide assistance through public financing and reimbursement programs, where feasible and appropriate, to support construction of infrastructure needed for new commercial and industrial uses.

Policy L2.2.4: Expedite and simplify permit processing to the extent feasible, and provide individualized assistance to persons requesting help with City procedures and permit processes.

Policy L2.2.5: Maintain frequent and open communication between representatives of the business community and of the City, to share ideas and resources on promoting economic development in Palmdale.

Policy L2.2.6: Provide public information materials on City programs and processes to assist business owners, participate in public forums on business issues, and utilize City newsletters and other means to address business needs for information.

Objective L2.3: Revitalize the core area of Palmdale so as to maintain and enhance its economic viability.

Policy L2.3.1: Based upon existing development patterns within the core area of Palmdale, designate a special development area consisting of the incorporated areas generally bounded by Avenue Q, Antelope Valley Freeway, Avenue R and 35th Street East excluding specific plan areas. Within this area, promote economic development through a variety of means including but not limited to the following:

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- a. Promote reduction of vacancy rates in existing structures by adopting development standards consistent with those used when the area was constructed, which may include but not be limited to parking, setback, landscaping and architectural requirements.
- b. Encourage infill development on vacant lots within this area through provision of incentives.
- c. Establish sign criteria appropriate for the density of development within this area.
- d. Promote development of municipal and administrative functions within the Civic Center area, to provide a focus for downtown businesses.
- e. Promote establishment of a transportation facility within the downtown area, serving as a hub for rail, bus and other public transportation systems.
- f. Promote outdoor activities within the downtown area to increase the number of people attracted to the area.
- g. Support the rerouting of State Highway 138 to the vicinity of Avenue P-8, so as to remove regional through traffic from downtown streets.
- h. Through a coordinated effort of all affected agencies, address areas requiring special attention to prevent blight in the downtown area.
- i. Promote shared parking to serve existing businesses and minimize the amount of land in the downtown area devoted to vehicle storage in proportion to that utilized for active businesses.
- j. Establish appropriate criteria to permit mixed use developments within the Office Commercial (OC) and Downtown Commercial (C-D) designated portions of the Downtown Revitalization Area.
(General Plan Amendment 96-1, adopted by City Council March 20, 1996.)

GOAL L3: Provide a high quality of life for all existing and future residents, meeting the needs of a variety of lifestyles.

Objective L3.1: Provide for the distribution of residential densities and housing types to meet the varied lifestyles and needs of existing and future City residents.

Policy L3.1.1: On the Land Use Map, establish residential land use designations for a range of residential densities as follows:

a. **Equestrian Residential:** The Equestrian Residential (ER) designation is intended for single family residential uses at a maximum gross density of .40 du/ac (1 unit per 2½ acres), yielding an estimated population of 800 persons per square mile. Equestrian and related animal keeping activities are permitted within this designation. The character of areas within this designation will be rural in nature with parcel sizes of 2½ acres or larger. Clustering to preserve significant natural landforms is feasible, although where this designation is located in established rural neighborhoods on level terrain, clustering may not be acceptable. Full urban services such as community water and sewer may not be available to these areas, and public improvements may be constructed to rural standards where permitted. Densities within this designation may decrease pursuant to slope density ratios established in the Hillside Management Ordinance. Actual permitted density will be determined through the development review process, based on applicable environmental and infrastructural conditions.

b. **Low Density Residential:** The Low Density Residential (LDR) designation is intended for single family residential uses at a maximum gross density of 1 dwelling unit per acre with an estimated population of 1,600 persons per square mile. The Low Density designation is appropriate to hillside areas and as a transition between rural and suburban areas. It is generally expected that urban services such as community sewer and water will be provided to new development proposed within this designation, although rural street and lighting standards may be appropriate to some projects. Minimum lot size within this designation will generally be one (1) acre or larger, although clustering may be permitted to encourage preservation of natural resources and steep slopes. Densities within this designation may decrease pursuant to the slope density ratios established in the

Hillside Management Ordinance. Actual permitted density will be based on applicable environmental and infrastructural conditions.

c. **Single Family Residential-1 (0-2 du/ac):** The Single Family Residential-1 (SFR-1) designation is intended for single family residential uses with gross densities ranging from 0-2 du/ac and an estimated population of 3,600 persons per square mile. Net lot sizes will generally be one half acre or larger, creating a semi-rural environment with horse/animal keeping possible. This designation may be utilized in lower hillside areas where inclines are present but topography is lacking significant slope constraints. It may also be utilized in outlying valley areas where large lot subdivisions are desired. Full urban services are expected in these areas, although larger lot subdivisions may develop with rural street and lighting standards as determined by the City. Clustering may be permitted to preserve steep hillsides and significant physical features. Densities within this designation may decrease pursuant to slope density ratios establishing in the Hillside Management Ordinance. Actual permitted density will be based on site specific environmental and infrastructural conditions.

d. **Single Family Residential-2 (0-3 du/ac):** The Single Family Residential-2 (SFR-2) designation is intended for single family residential uses with gross densities ranging from 0-2 du/ac and an estimated population of 5,600 persons per square mile. Net lot sizes will generally be 10,000 square feet or larger, although clustering may be permitted to preserve steeper terrain or significant physical features. This designation is appropriate in those areas between the valley floor and steeper hillside areas (generally having less than ten percent slope). Full urban services will be required in new development areas. Densities within this designation may decrease pursuant to slope density ratios established in the Hillside Management Ordinance. Actual permitted density will be based on site specific environmental and infrastructural conditions.

e. **Single Family Residential-3 (3.1 - 6 du/ac):** The Single Family Residential-3 (SFR-3) designation is intended for single family residential uses with gross densities ranging from 3.1-6 du/ac and an estimated population of 9,700 persons per square mile. Subdivisions containing the City's standard 7,000 square foot minimum lot size will typically be located within this designation. Densities under this designation may decrease pursuant to the

slope density ratios established in the Hillside Management Ordinance. Actual permitted density will be based on site specific environmental and physical constraints.

f. Medium Residential: The Medium Residential (MR 6.1 to 10.0 du/ac) designation is intended for residential uses at maximum gross densities ranging from 6.1 to 10 units per acre and an estimated population of 16,200 persons per square mile. Housing types may include single family detached, single family attached, townhouses, condominiums, duplexes, triplexes, apartments, or manufactured housing developments. Permitted structure types will be as specified in the underlying zone district. For single family residential uses within this designation, the minimum permitted lot size is 7,000 square feet, unless otherwise specified in an approved specific plan or residential planned development offering a variety of lot sizes, housing types, and public amenities, a senior housing project, or other approved development plan.

The Medium Residential designation is appropriate within those areas having existing or planned residential uses at 6.1 to 10 units per acre, which are or will be served by adequate infrastructure and services needed to support this level of development. Maximum permitted density will be determined through the development review process, based upon environmental and infrastructural conditions. Equestrian and large animal uses are not intended within this district.

g. Multi-family Residential: The Multi-family Residential (MFR 10.1-16) designation is intended for residential uses with densities ranging from 10.1-16 du/ac and an estimated population of 26,000 persons per square mile. Housing types may include a variety of attached and detached dwelling unit types, as permitted by the underlying zone. Actual density permitted will be based on site specific environmental and infrastructural conditions. *(General Plan Amendment 94-4, adopted by City Council December 14, 1994.)*

Policy L3.1.2: In calculating the actual permitted density on a parcel of land, the following constraints will be considered: *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

a. No residential density shall be calculated for any seismic set back zone adjacent to active or potentially active fault traces where construction of habitable structures is not permitted, as delineated

by a site-specific geotechnical report. However, seismic set back zones may be included in the calculation of minimum lot area and building setbacks. Areas located within the Alquist-Priolo Earthquake Zone, as delineated by the State Geologist, are subject to the density limitations described in Policy L1.4.2.

b. A maximum residential density of .5 (one/half) dwelling unit per acre shall be calculated for flood hazard areas shown on the latest Flood Insurance Rate Maps as Zone A, and within the historic high water mark of Amargosa Creek, Ana Verde Creek, Littlerock Wash, Big Rock Creek, Hunt Canyon or any natural blue-line creek, except where the Land Use Map indicates lower densities in these areas.

c. In hillside areas, density calculation will also be subject to the provisions of the City's Hillside Management Ordinance.

Objective L3.2: Adopt policies for residential uses within the City to enhance the quality of residential neighborhoods.

Policy L3.2.1: Permit a range of residential densities and housing types throughout the City, rather than concentrating higher densities in limited areas.

Policy L3.2.2: Direct the location of senior and multi-family housing to areas accessible to public transportation, supportive commercial uses, and community facilities.

Policy L3.2.3: Maintain the usability of residential yard areas through development of standards for accessory structures in residential districts, and through exclusion of required landscape easements from calculation of required lot area.

Policy L3.2.4: Maintain 7,000 square feet as the minimum lot size standard for single family residential subdivisions; permit flexibility from this standard in conjunction with approval of a comprehensive planning document such as a specific plan or planned residential development

Policy L3.2.5: Preserve the viability and value of existing multi-family neighborhoods by considering the long-term impacts of proposed condominium conversions on residents as well as on

adjacent properties, and develop standards and criteria to guide decisions on proposed conversions.

Policy L3.2.6: Require disclosure, as deemed appropriate, on proposed residential developments which are affected by existing conditions such as, but not limited to, mineral resource extraction, noise, dust, odors, light, seismic hazards, and frequent overflight of aircraft.

Objective L3.3: Protect existing mobile home parks as an affordable housing alternative, and provide opportunities for development of new mobile home or manufactured housing communities.

Policy L3.3.1: Permit establishment of parks and subdivisions utilizing mobile homes or manufactured housing within all residential zones, if the density is in conformance with the applicable General Plan residential density range, subject to the regulations of the underlying zone.

Policy L3.3.2: Encourage the development of mobile home or manufactured housing subdivisions as opposed to land lease parks, in order to provide affordable housing alternatives which provide increased financial security to residents.

Policy L3.3.3: Minimize potential impacts of mobile home park conversions on park tenants and on the City's affordable housing supply, by establishing standards and procedures for proposed mobile home park conversions.

Policy L3.3.4: The City recognizes the need to preserve existing mobilehome housing opportunities within the City of Palmdale and Planning Area. Table LU-5 lists the mobilehome parks in the City of Palmdale and Planning Area as of January, 1993. In order to provide stability and a high quality living environment for residents of these mobilehome parks, the following standards for maintenance and criteria for conversion of the parks to other uses shall apply:

a. Standards for Maintenance:

1. Common areas, including common landscaping, parking areas, drive aisles, and pedestrian access, shall be maintained in a neat and orderly fashion, free from conditions which may jeopardize

residents' health, safety and welfare. Unsafe conditions shall be promptly repaired.

2. Park amenities, such as recreation buildings, outdoor recreation features, and laundry facilities, shall be maintained in a functional manner as prescribed in the approved plan for the park.

b. Conversion Standards and Procedures:

a) The proposed conversion shall be in compliance with the provisions of California Government Code Sections 65863.7 through 65863.9.

b) Residents shall be provided with the right of first refusal to purchase the park and all improvements if the land occupied by the park is to be sold.

c) The proponent of the proposed conversion shall provide all owners of individual mobilehomes within the park with a reasonably complete and current list of vacant and available mobilehome park spaces within a 20-mile radius.

d) The proponent of the proposed conversion shall pay each mobilehome owner a relocation fee (as specified in a conversion ordinance) to assist the recipient in meeting costs of relocation, higher rents for replacement mobilehome park spaces and/or the added cost of a replacement mobilehome.

c. Evaluation of Current/Future Land Use Designation and Zoning:

1. When reviewing a proposed mobile home park conversion, the City should evaluate the existing and proposed zoning and land use designations of the site of the proposed conversion to ensure that future use of the site is compatible with the surrounding area. The City Council may initiate a General Plan Amendment and Zone Change on the site if deemed necessary to ensure that future use of the property meets General Plan goals, objectives and policies.

Policy L3.3.5: Require a Conditional Use Permit, or equivalent approval the duration of which will run for the life of the development, for the establishment of any new mobilehome park or subdivision, or major modification of an existing mobilehome park within the City. The approval shall be consistent with all zoning

code requirements for mobilehome parks, planned unit developments or subdivisions. (*General Plan Amendment 94-4, adopted by City Council December 14, 1994.*)

Objective L3.4: Consider underlying topography, existing parcelization, existing land uses, infrastructure availability, and relationship between uses in designating and developing residential land uses.

Policy L3.4.1: Encourage flexible siting and design techniques and density transfers in hillside or physically constrained areas to preserve steep slopes or unique physical features.

Policy L3.4.2: Adopt rural design standards in areas where minimum net lot size is 40,000 square feet or larger.

Policy L3.4.3: Avoid designating land for higher density uses where prevailing existing development patterns are rural residential with lot sizes of one (1) acre or more.

Policy L3.4.4: Encourage subdivision design techniques that reflects underlying physical topography. Density and intensity of development should decrease as slope steepness increases.

Policy L3.4.5: When residential development is proposed outside the urban core, where urban infrastructure does not exist and no plans exist for provision of backbone infrastructure, require the preparation and approval of comprehensive planning documents such as specific plans, area plans and master facilities studies to assess the project's needs and impacts.

Objective L3.5: Ensure that future residential development provides an attractive living environment and creates long-term value for residents as well as the community.

Policy L3.5.1: Adopt design standards for multifamily development which will create a safe, convenient, attractive environment with public or private open space and recreational on-site amenities.

Policy L3.5.2: Adopt standards for the design of single family subdivisions that will ensure functional integration with existing development, community facilities and supportive services.

Policy L3.5.3: Consider intensity as well as density of development in evaluating residential projects; building mass and coverage should be proportional to the size of parcel being developed.

Policy L3.5.4: Require mobile home parks and subdivisions to provide sufficient open space and recreational amenities to adequately serve their residents and assure consistency with surrounding development.

Policy L3.5.5: Require that development is designed to be sensitive to the preservation and protection of the desert environment and that building orientation and design consider and complement the natural characteristics of the desert environment.

Objective L3.6: Maintain the integrity, safety, and attractiveness of existing residential neighborhoods.

Policy L3.6.1: Actively pursue compliance with applicable codes and ordinances to ensure public safety and maintenance of residential areas.

Policy L3.6.2: Promote development of pro-active property maintenance and community appearance programs including greater emphasis on volunteer efforts.

Policy L3.6.3: Support community groups and homeowners' associations to assist in community maintenance programs.

Policy L3.6.4: Develop design and landscaping standards to encourage safety and visibility and discourage illicit activities such as graffiti in residential neighborhoods.

Policy L3.6.5: Require that any request for a condominium conversion comply with all elements of the General Plan in effect at the time such a request is filed.

GOAL L4: Provide opportunities for a wide range of retail and service commercial uses, to serve neighborhood, community and regional needs and provide economic benefit to the City of Palmdale.

Objective L4.1: Provide sufficient land to accommodate a variety of commercial land uses to meet community needs.

Policy L4.1.1: On the Land Use Map, establish land use designations to meet the City's long-term commercial needs, as follows:

a. **Office Commercial:** The Office Commercial (OC) designation is designed to accommodate a variety of professional office uses, including medical, personal, business, legal, insurance, real estate, financial, and other similar uses. Limited retail, service, child care and eating establishments may be permitted to support the primary office users within this designation, provided that they function as a supportive use and do not detract from the stated intent of this designation. Vocational, technical and trade schools, private or public college or universities, and supportive commercial uses may be consistent with this designation, provided that land use compatibility and infrastructure are adequately addressed through the design review process. This designation is appropriate between more intensive commercial uses and residential designations, or within commercial areas serving the administrative and professional service needs of businesses and the general public. The maximum floor area ratio within this designation is 1.0. Mixed use residential/office development should be encouraged within the Office Commercial designated portion of the Downtown Revitalization area through the development of appropriate mixed use development standards. (*General Plan Amendment 96-1, adopted by City Council March 20, 1996.*)

b. **Neighborhood Commercial:** The Neighborhood Commercial (NC) designation provides for convenience type retail and service activities designed to serve the daily needs of the immediate neighborhood. Goods and services provided serve the short-term needs of local residents. Typical neighborhood commercial development is located on sites of 15 acres or less with a maximum floor area ratio of .50. Site and building designs for neighborhood commercial development should be sensitive to adjacent residential uses. Buffering should be both effective and aesthetic with site design emphasizing both automobile and pedestrian needs.

c. **Community Commercial:** The Community Commercial (CC) designation is intended for businesses providing retail and service

uses which primarily serve the local market. Representative uses include restaurants, apparel stores, hardware stores, grocery markets, banks, offices, and similar uses. Goods and services intended to meet both short and long term shopping needs of City residents should be targeted for these areas. A typical community commercial development contains 5 to 20 acres with a maximum floor area ratio of 1.0. Community commercial uses should have access from arterial streets, and should incorporate design measures to minimize adverse impacts to the capacity of adjacent arterial streets and to adjacent less intensive land uses.

d. Regional Commercial: The Regional Commercial (RC) designation is designed to accommodate retail and service uses attracting consumers from a regional market area. Goods and services provided are typically long-term in nature, rather than convenience goods. Representative uses include department stores, regional shopping malls, automobile dealerships, hotel/motels, and large retail outlets. Supportive commercial uses serving a community commercial function, such as financial institutions, retail and food services, may also be appropriate in this designation, provided that such uses are not primarily oriented to the convenience market. Regional commercial uses should be accessible via major arterial streets or freeways. Total development area within regional commercial designations typically ranges from 40 to 100 acres or more, although individual developments within the designation may be on smaller parcels. Maximum floor area ratio is 1.0. Site design of regional centers should consider pedestrian needs and internal circulation that minimizes impacts on adjacent arterials.

e. Downtown Commercial: The Downtown Commercial (DC) designation is intended for the City's traditional retail/service core area, located in proximity to Palmdale Boulevard. Property within this land use category is intended to be subject to the policies and design guidelines contained in the Downtown Revitalization Plan. Representative uses are designed to produce high levels of social or commercial activity in the downtown area and include entertainment uses, institutional uses, pedestrian oriented retail and service uses, and support community commercial uses. Mixed use residential/commercial development should be encouraged within the Downtown Commercial (DC) designated portion of the Downtown Revitalization area through the development of

appropriate mixed use development standards. (*General Plan Amendment 96-1, adopted by City Council March 20, 1996.*)

Policy L4.1.2: Provide opportunities for commercial uses that meet the specialized needs of rural residential neighborhoods throughout the Planning Area, as follows:

- a. Permit neighborhood commercial development within rural areas to serve the needs of these areas, provided that such projects provide safe, logical and functional access for pedestrian and equestrian users from the adjacent neighborhood.
- b. Ensure that development is designed for appropriate uses (feed and tack stores, produce markets, or similar uses) and incorporates functional design elements (such as staging areas for equestrian users) that are reflective and supportive of the immediate rural neighborhood. Convenience stores, or similar neighborhood commercial uses that are typically located within a suburban neighborhood would not be considered consistent with this policy.
- c. Where a change of land use or zone designation is required to permit development of a project within an area containing the characteristics described in this section, this change shall be processed concurrently with a development application to ensure that the site is developed in conformance with this policy.

Objective L4.2: Adopt policies for siting and development of commercial land uses which ensure that designs are efficient, functional, and attractive to users and adjacent properties.

Policy L4.2.1: Encourage development of commercial uses in nodes accessible from major streets and intersections, rather than in long, continuous strips.

Policy L4.2.2: Ensure that commercial uses are spaced at appropriate intervals throughout the City in order to adequately serve users while minimizing land use interface conflicts and preserving the capacity of arterial streets, through the following measures:

- a. Avoid the creation of strip commercial development along arterial roadways. Cluster commercial development in nodes to the extent feasible.

b. Require that nodes of commercial development intended to serve primarily a neighborhood service function be spaced at no closer than one-half mile from other commercial designations.

c. Preserve a minimum spacing of one mile between commercial areas serving primarily community or regional service functions, to the extent feasible.

Policy L4.2.3: Avoid overdesignating commercial land uses, in order to maintain the value of existing commercial designations and avoid high vacancy rates.

Policy L4.2.4: Develop and permit uses that promote the City's role as a center of regional retail commercial uses.

Policy L4.2.5: Discourage future strip commercial development along Palmdale Boulevard. Consider the designation of less intensive uses such as professional offices or residential with non-Palmdale Boulevard access points.

Policy L4.2.6: Encourage lot consolidation and shared parking and driveways in areas of small existing parcel sizes.

Policy L4.2.7: Consider future commercial land use needs on the City's far west side and designate additional commercial land as deemed appropriate to serve west side residents.

Policy L4.2.8: Establish site specific siting criteria for commercial land uses as set forth below:

a. Commercial development should be located in areas free from major topographic variation.

b. Commercial uses should be located and designed in such a way as to minimize interface conflicts with existing and planned residential neighborhood.

c. Commercial sites should have a high level of visibility from public streets.

Policy L4.2.9: Avoid designating land for commercial uses simply because residential uses appear inappropriate. Consider other alternatives, including but not limited to the following:

- a. Creating an environment suitable for residential uses by employing design techniques to minimize noise/traffic impacts such as sound walls, landscaped setbacks, frontage roads, use of drainage basins, linear parks, greenbelts and trail systems to buffer dwelling units from major transportation corridors.
- b. Considering alternative uses such as industrial, open space, public facilities, or commercial office.

Policy L4.2.10: Develop standards for location and operation of convenience stores and other 24-hour business to minimize impacts on residential neighborhoods.

Policy L4.2.11: Establish design criteria for neighborhood shopping centers that promote pedestrian elements and design integration with surrounding residential uses.

Policy L4.2.12: Ensure that impacts from adult entertainment and sexually oriented businesses are minimized by providing sufficient separation from residential neighborhoods, churches, schools, and other sensitive uses.

Policy L4.2.13: Develop standards to ensure that development of all commercial buildings within a center are designed to be consistent with an overall design theme, utilizing unifying architectural styles, colors and material schemes, integrated pedestrian walkways, and similar measures.

Policy L4.2.14: Adopt standards for parking lot landscaping to enhance aesthetic appeal and to provide a tree canopy for vehicular shading.

Policy L4.2.15: Develop design criteria and development standards to ensure that commercial developments are planned, phased and constructed in a manner which integrates design elements, including but not limited to parking, landscaping, access and building orientation within an overall development plan.

GOAL L5: Provide opportunities for a wide range of manufacturing and related industrial uses in the City, so as to facilitate expansion and diversification of the City's economic base and provide additional employment opportunities.

Objective 5.1: Provide sufficient land to accommodate a wide variety of industrial uses to meet community needs.

Policy L5.1.1: On the Land Use Map, establish designations to meet the City's long-term industrial and manufacturing needs, as follows:

a. **Commercial Manufacturing:** The Commercial Manufacturing (CM) designation is intended to permit mixed use development of lighter industrial uses and the more intensive service, retail and wholesale commercial uses. Research and development, distribution, manufacturing and wholesale or retail sale of industrial supplies, transportation equipment, building equipment and materials, and similar uses are allowed in this designation. In addition, supportive commercial uses such as restaurants or convenience markets, which serve consumers within the industrial/commercial area, may be allowed. However, the CM designation is not intended for general commercial uses, either of a retail or service nature, which will attract non-industrial users and vehicular traffic into the area. The CM district is appropriate in areas having or planned to have adequate sewer, water, transportation, drainage, utilities and public services available to meet anticipated needs of this type of development. The designation may be used as a transitional use between more intensive industrial uses and less intensive commercial uses. Maximum floor area ratio in this district is 0.5.

b. **Business Park:** The Business Park (BP) designation is intended to permit a variety of office, research and development, light assembly and fabrication, and supportive commercial uses within an environment characterized by master-planned complexes maintaining a high quality of design and construction. Development in this designation is expected to provide enhanced landscaping and outdoor amenities to create a campus setting. Operations and storage activities are to be confined to enclosed buildings. This designation is appropriate in locations with good access and visibility from the freeway and major arterials. Site areas should be large enough to accommodate comprehensive

planning, and adjacent business park developments should be designed to promote cohesive and compatible development. Maximum floor area ratio is 0.5.

c. **Industrial:** The Industrial (IND) designation is intended to permit a variety of industrial uses, including the manufacturing and assembly of products and goods, warehousing, distribution, and similar uses. Some limited commercial uses which are incidental to and supportive of the primary industrial uses may also be permitted. This designation permits the most intensive types of manufacturing and industrial uses, subject to the height, coverage and development regulations of the underlying zone district. The Industrial designation is appropriate in areas having or planned to have adequate sewer, water, transportation, drainage, utilities and public services available to meet anticipated needs of this type of development. Where possible, industrial designations should be separated from residential areas by natural or manmade barriers, such as major arterials, utility easements, drainage courses or railroad rights-of-way. Adequate land use and design standards to mitigate impacts from intense uses in this designation will be addressed through the zone districts and design review process. Maximum floor area ratio within this designation is 0.5.

d. **Airfield and Related Use:** The Airfield and Related Use (A & R) designation is intended to permit public and private airfields and support facilities, aerospace related industries, transportation related industries, and commercial facilities necessary to support military and commercial air traffic. This designation will primarily apply to U.S. Air Force Plant 42 and the Palmdale Regional Airport site as designated by the City of Los Angeles Department of Airports. Future development within this designation will be required to employ appropriate performance standards and design features to minimize impacts on nearby residential neighborhoods. Maximum floor area ratio within this designation is 0.5.

e. **Mineral Resource Extraction:** The Mineral Resource Extraction (MRE) designation is intended to permit extraction and processing of mineral resources, including sand, gravel and decomposed granite. Activities consistent with this designation include mining, crushing and sales of mineral products; asphalt and concrete batching are permitted as regulated by the underlying zone district. This designation is appropriate in areas designated by the State Division of Mines and Geology as Mineral Resource

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Zone 2 areas, or where significant mineral resources occur the extraction of which is determined to be beneficial. Operations within this designation are subject to all applicable policies, ordinances and laws regulating traffic impacts, air and water quality, and land use compatibility. Maximum floor area ratio within this designation is 0.25.

Objective L5.2: Adopt policies for siting and development of industrial land uses which ensure that designs are efficient, functional, and attractive to users and adjacent properties.

Policy L5.2.1: Discourage encroachment of incompatible uses into or adjacent to designated industrial land, when it can be shown that such uses may ultimately impede development of industrial uses, and that such uses may be established elsewhere in the Planning Area.

Policy L5.2.2: Assure compatibility of industrial development with adjacent uses, through the following measures:

- a. Adopt development standards for industrial uses, to ensure compatibility with adjacent uses and aesthetically pleasing views from adjacent rights-of-way, including but not limited to standards for screening of outdoor storage, locations of loading and refuse disposal areas, height, bulk, impervious surface area, architectural enhancement, landscaping, and other measures as deemed appropriate.
- b. Designate areas of less intensive uses between heavy industrial uses and less intensive business or residential designations.

Policy L5.2.3: Encourage master planning within industrial areas to ensure adequate and comprehensive provision of infrastructure and efficient, attractive designs, through use of specific plans and equivalent planning documents.

Policy L5.2.4: Ensure effective utilization of industrial land resources by avoiding creation of small lot subdivisions in excess of the number of small industrial lots needed to meet community requirements.

Policy L5.2.5: Designate land and adopt development standards so as to provide an appropriate mix of industrial uses, including

labor intensive, light manufacturing, warehousing, and spaces for small shop industries.

Policy L5.2.6: Designate industrial uses only within areas of the City without significant topographic constraints, and preclude industrial uses in hillside areas.

Policy L5.2.7: Adopt performance standards for noise, odors, emissions, vibrations, glare, radiation, and other potential impacts of industrial development.

GOAL L6: Plan for and reserve land to accommodate uses needed for public benefit, including open space, recreation, public improvements, schools and community facilities.

Objective L6.1: Ensure that adequate land is available for uses serving or providing benefit to the general public.

Policy L6.1.1: On the Land Use Map, designate land for public uses to meet community needs for schools, parks, community facilities, open space, utilities, and infrastructure. The following land use designations have been established on the land use map to meet these needs.

a. **Open Space:** The Open Space (OS) designation is intended to identify and reserve land for both natural and active open space uses, including City parks. The designation identifies existing and acquired but not yet built park sites within the community, as well as lands dedicated to the City for open space purposes. The designation is appropriate to protect sites with physical limitations such as flood plains, very steep terrain (slopes steeper than 50 percent), or significant natural resources. Typical uses permitted within the open space designation include recreational uses, horticulture, agriculture, animal grazing or similar uses.

b. **Public Facilities:** The Public Facilities (PF) designation identifies land which is or will be utilized for various types of public facilities, including but not limited to schools, parks, libraries, hospitals, public safety and governmental facilities, sewer and water treatment plants, and landfills. Existing or acquired public facility sites are designated PF on the land use map; however, public facilities may be allowed in other land use designations as established by the underlying zoning. Within the PF designation,

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uses are specifically identified by use type on the land use map. The maximum floor area designation within this designation is 1.0. *(General Plan Amendment 94-3, adopted by City Council August 11, 1994.)*

c. Other Land Use Designations: Public and quasi-public uses may also be located within other land use designations as established by the underlying zoning, provided that such locations are consistent with applicable General Plan policies and meet a general community need. *(General Plan Amendment 94-3, adopted by City Council August 11, 1994.)*

Objective L6.2: Adopt development standards for public uses to ensure compatibility with adjacent properties, minimize adverse impacts and maintain a high standard of quality for development within the City.

Policy L6.2.1: Consider acceptance of natural open space dedications to the City if such dedication is consistent with City plans for an open space/greenbelt network. Lands proposed for dedication which lack potential for linkage with an overall system or lack valuable natural resources may not be suitable for acceptance by the City.

Policy L6.2.2: Provide a 1,000 foot buffer between property designated as PF-Landfill on the General Plan Land Use Map and future residential developments. *(General Plan Amendment 93-2, adopted by City Council October 13, 1993.)*

GOAL L7: Provide proactive comprehensive planning within designated areas of the City where unique development opportunities or physical conditions warrant special planning efforts.

Objective L7.1: Identify areas within the City which merit special planning considerations and develop policies containing development criteria for these areas.

Policy L7.1.1: Ensure that development within the area between Lake Palmdale and the Antelope Valley Freeway is complimentary to the lake viewshed and consistent with sound water quality management practices by following the development criteria listed below:

- a. Limit building heights to a maximum of 20 feet as measured from the highest adjacent grade.
- b. Require a minimum 100 foot setback from the historical high water mark of Lake Palmdale.
- c. Require that proposed buildings incorporate design elements including the limitation of building widths, to minimize viewshed impacts.
- d. Design storm and other drainage structures to convey storm and nuisance water away from Lake Palmdale. No conveyance will be allowed into Lake Palmdale.
- e. The area shall be served by a sanitary sewer system. No septic systems will be allowed.
- f. Underground storage of petroleum or similar products which pose a threat to lake contamination shall be prohibited.
- g. Rear and side elevations should contain similar elements of the front elevation, ensuring that buildings within the area maintain an cohesive, unified appearance on all sides.
- h. Loading and refuse containment areas must be screened from public view utilizing architectural elements consistent with overall building design.
- i. Completely screen all mechanical and rooftop equipment from view from S.R. 14 and Avenue S. Roof top equipment screening shall be accomplished through architectural means compatible with the building design.
- j. Require view studies to fully evaluate adequacy of equipment screening and building impacts on viewshed. Renderings for such studies should show landscaping at introduction as well as a maturity.
- k. Utilize landscaping to soften building mass and parking areas without impeding views.
- l. Utilize earth tone colors for building and roof materials to blend with natural setting to the maximum extent feasible.

m. Prohibit use of sound walls as a method for acoustical mitigation of building interiors. Noise mitigation shall be accomplished through proper site planning and the use of appropriate building and construction techniques.

n. Require conditional use permit or equivalent entitlement for all development within the subject area.

Policy L7.1.2: Ensure that development adjacent to the intersection of Pearblossom Highway and Sierra Highway provides for proper integration of differing land uses, establishes development patterns that maintain an aesthetically pleasing entrance to the City, and minimizes grading in steep terrain as set forth in the following criteria:

a. General

1. Areawide circulation and infrastructure plans shall be prepared for the entire overlay area prior to approval of any development other than a single family residence on an existing lot. Said plans must consider provision and extension of sewer, water, and storm drainage, streets and highways, and public services.

b. Low Density Residential

1. In the event grade differentials preclude other access options, primary access to the residential area from Pearblossom Highway may be permitted through the business park area.

2. Ensure that grading for residential subdivisions respects the natural contours and retains natural topography to the maximum extent feasible.

c. Business Park

1. Primary access to the business park shall not be permitted through residential areas.

2. Minimize the development of a "canyon" effect along Pearblossom Highway and impacts to adjacent residential uses by establishing setback and height limitations as specified by appropriate zoning districts and entitlement permit review.

3. Provide buffering from existing and future Low Density Residential uses in accordance with the following performance standards:

a) Require photometric lighting plans and appropriate light fixtures to limit spillover of lighting from business park uses into residential areas.

b) Direct traffic from business park uses away from residential areas.

c) Prohibit uses within the business park that would create excessive noise and/or unusual or obnoxious odors.

Policy L7.1.3: Adopt policies for approximately 80± acres located east of the Antelope Valley Freeway, approximately 440 feet north of Avenue S, west of 5th Street East and south of Avenues R-8 and R-12, which is designated as "Business Park" on the Land Use Map, to ensure that future businesses uses in this area will present an attractive visual appearance from the freeway and adjacent properties, and that development is sensitive to the physical, environmental and land use constraints in the area, as follows:

a. A master plan shall be prepared for the entire 80± acres prior to issuance of subsequent entitlement permits for individual parcels within the subject area.

b. A Conditional Use Permit or equivalent entitlement shall be required for all development within the subject area.

c. All future development shall comply with the following architectural standards to ensure that development is low profile, well integrated with the natural topography, and utilizes appropriate architectural elements and materials:

1. Building design should incorporate similar materials, form, and architectural details on all elevations to present a unified appearance.

2. To the extent feasible, building heights should be minimized through creative grading techniques such as partial subterranean

designs to reduce above ground height of buildings when viewed from lower lying areas.

3. Building materials and colors should be chosen that enhance blending with the natural terrain. Highly reflective materials are discouraged.

d. Building heights shall be in accordance with underlying zone district requirements, however, in no event shall building heights exceed two (2) stories or 35 feet in height as measured from the highest adjacent grade.

e. All landscaped areas and the future park site shall be improved and maintained by the developer or successors interest.

f. The developer or successor in interest will be responsible for retention and protection of natural vegetation in non-graded areas.

g. Parking areas should be screened from lower lying areas through use of berms, landscaping, or similar measures. Landscape plan concepts for parking lot areas should emphasize creation of a tree canopy by providing tree wells between parking spaces at appropriate intervals.

Policy L7.1.4: Ensure that development within the area generally located north of Avenue S-4, west of the A.V. Freeway (also known as the Anaverde Hills) is compatible with and complimentary to existing development by requiring that future subdivisions provide a minimum 1 acre net lot area.

Policy L7.1.5: Ensure that future development within the Vincent Hills area retains significant natural features on the site and provides comprehensive circulation planning between various individually owned parcels within the area in accordance with the following criteria: *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

a. Steeper hills and larger drainage courses shall be retained in a natural state.

b. The circulation pattern shall provide linkages between the various individually owned parcels within the area. *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

c. A master infrastructure plan shall be provided for the area, considering storm drainage, sewer, water, roads and public services.

Policy L7.1.6: Ensure that development within the Santa Fe Hills area provides adequate means of secondary access, minimizes visual impacts and grading on north facing sides of Ritter Ridge, provides for a compatible mix of housing types, and establishes an effectual integration of natural and developed areas in accordance with the following criteria: *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

a. Utilize physical advantages of site to minimize visual impacts. Avoid grading or siting of dwelling units on the north facing side of Ritter Ridge unless visual impacts are minimized.

b. Provide specific street sections and profiles for the secondary access road connecting to Elizabeth Lake Road.

c. Develop architectural standards which ensure that any multi-family development contains architectural elements and building designs consistent with single family building designs.

d. Provide a master infrastructure plan for the entire area. *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

Policy L7.1.7: Within the Mineral Resource Extraction Zone generally located east and west of 70th Street West and south of Avenue N, ensure that future mining activities over which the City has discretionary authority are compatible with neighboring residential uses, to the extent feasible, by implementing the following standards: *(General Plan Amendment 93-2, adopted by City Council October 13, 1993.)*

a. Permit only the extraction and processing of materials that are native to the site; uses such as concrete and asphalt batching, which require import of raw materials, are not acceptable.

b. Ancillary uses allowed on the site should be only those uses normally associated with extraction and/or processing of decomposed granite. Uses that are not directly associated with the primary use of the site, such as the storage of vehicles or

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equipment not related to on-site materials extraction, are not appropriate.

c. Ensure that measures to control noise, dust and erosion/sedimentation are applied to on-going mining activities.

d. To the extent feasible, require screening from public view all equipment, stockpiles or wastepiles.

e. Evaluate truck access to and from the site in order to reduce impacts generated by truck traffic, such as noise and safety concerns, which affect nearby residents.

Policy L7.1.8: Ensure that development within the area bounded by Palmdale Boulevard and Avenue S and 70th and 75th Streets East provides adequate separation of residential development and mineral resource extraction land uses, provides passive recreational opportunities and creates a range of single-family residential housing opportunities supported by well-planned infrastructure, as set forth in the following criteria: *(General Plan Amendment 96-2, adopted by City Council July 10, 1996.)*

A. Prepare a greenbelt plan/trails plan for the area showing trail connections to adjacent neighborhoods. This plan should include the following:

1. Provide trail connections to Bikeways along 75th Street East and Avenue S and a Multi-use Trail within the Littlerock Wash.

2. Provide trail connections to the proposed school site located at the northwest corner of 70th Street East and Avenue S; to the two park sites within the project site; and to the Neighborhood Commercial site located at the southeast corner of Palmdale Boulevard and 70th Street East.

B. Provide adequate buffering between residential uses and mineral resource extraction uses and ensure that residential development does not interfere with the continued use of the mining area.

1. Examine the feasibility of downgrading 75th Street East from an arterial roadway to a local or collector street, and provide a linear park with trails as an alternative use or require a greenbelt or linear

park which averages 100 feet in width, on the west side of 75th Street East, to provide a land use buffer between residential and mineral resource extraction areas.

2. Require larger lots adjacent to the mineral resource extraction area.

C. Permit clustered development, with minimum lot sizes of no less than 7,000 square feet, when greenbelts or paseos are provided, or natural open space areas are maintained.

D. Require an infrastructure study within the project area to determine appropriate alignment for collector roads, water and sewer lines, drainage facilities, and community services.

Policy L7.1.9: On the Land Use Map, establish a land use designation that may be utilized in areas of the City currently lacking urban services but where future development is anticipated upon establishment of plans for infrastructure and related development issues as defined below: *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

Special Development Designation

The Special Development (SD) designation is appropriate for areas for which focused planning efforts to ensure orderly and logical development in accordance with General Plan policies are ongoing. The SD designation is placed upon areas which, due to lack of infrastructure and public services, topography, environmental sensitivity, and development constraints, require comprehensive planning prior to development which goes beyond the level of detail normally associated with the General Plan. This planning could be accomplished through the Specific Plan process, although other methods may be acceptable if they provide the following: 1) A detailed implementation program, including facility phasing and funding; 2) carefully prescribed balance of development and open space within a Planning Area, in an economically feasible manner; 3) special regulations that are responsive to unique local conditions; and 4) necessary flexibility for long range planned community projects. *(General Plan Amendment 96-4, adopted by City Council April 9, 1997.)*

Other than single family dwellings on existing lots, development is primarily intended to be residential in nature, with a gross density of 0-2 dwelling units per acre. However, supportive commercial uses are anticipated within the (SD) designation. Actual permitted residential densities and the location and intensity of commercial uses are to be determined based upon a site's capacity to accommodate the proposed development, considering such factors as availability of urban services; adequacy of existing and proposed roads to service the proposed densities; physical constraints, including slopes, drainage courses, faults, or similar features; compatibility with adjacent land uses; or other requirements of development, as identified through the review process. In no instance shall the density range established for this designation be interpreted as a guarantee of permitted density.

Upon preparation, review and adoption of one or more comprehensive Specific Plans or similar comprehensive planning document(s) for property within this designation, higher residential density and the location and intensity of supportive commercial uses may be established based upon environmental, topographic, and infrastructural capacity of the land as defined by supporting documentation. With approval of such Specific Plan or comprehensive planning studies, a General Plan Amendment may be approved to amend the land use designation as determined appropriate pursuant to those studies.

Policy L7.1.10: Ensure that future development within the proposed College Park Palmdale Specific Plan (also known as the Bushnell Special Development Area considers physical constraints on the property, including earthquake faults and canyon areas, and that densities are established which maintain consistency with the south side area. Any future development within the College Park Palmdale Specific Plan shall be established in accordance with the following criteria: *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

a. Clustering of residential units shall be used to ensure preservation of open space in steeper areas and within fault zones. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

b. A covenant shall be recorded on land encompassing Hunt Canyon and along Barrel Springs Road as determined by the approved Specific Plan to ensure that these areas remain as open

space. In addition, should these areas not be developed as a golf course in accordance with the College Park Palmdale Specific Plan and related Development Agreement, a system of hiking and equestrian trails, passive open space, and park improvements such as picnic and seating areas and open play areas shall be developed at the same schedule required of the golf course development. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

c. A trails system shall be provided which connects to a regional system. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

d. All neighborhood commercial uses proposed as a part of the Specific Plan shall be limited to those serving only the short-term goods and services needs of the community college and nearby residential areas. No 24-hour uses or gas or service stations shall be permitted. Design of any commercial facilities shall be compatible with the overall community design theme. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

e. Design and operation of any commercial facilities shall reduce impacts on nearby residential areas to the extent feasible through limiting hours of operation to no later than 10:00 p.m., allowing light fixtures no higher than 14 feet to minimize glare, providing a minimum of 10% of the site for landscaping, and architecturally screening all equipment and utility devices. If rooftop equipment cannot be screened from adjacent or nearby properties, ground-mounted equipment should be provided and screened. Design of any neighborhood commercial center shall be compatible with the overall community design theme of the College Park Palmdale Specific Plan. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

f. A Master Drainage Plan shall be provided utilizing natural open space and drainage areas to the maximum extent feasible. A master infrastructure plan shall be provided for the area, considering sewer, water, roads, and public services. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

g. Access to the Community College shall be provided on 47th Street East. Driveway access to the neighborhood commercial site will be allowed from Barrel Springs Road and 47th Street East. The

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design of such access shall be subject to review and approval of the City Traffic Engineer and Planning Director at the time of development review. Primary access to Barrel Springs Road for the residential portions of the project shall be limited to one (1) access point, in addition to 37th Street East, except that additional residential access to Barrel Springs Road may be allowed as temporary or emergency access only where deemed necessary by the City Engineer. Parking will be prohibited along all arterial roadways. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

h. A minimum of one-acre (1) lots and/or open spaces shall be provided at the periphery of the non-college portion of the project area, to assure consistency with the surrounding rural area; specifically, this requirement applies to land south of Barrel Springs Road, east of 37th Street East and north of the alignment of Avenue V. Land west of 47th Street East, excluding the college and commercial sites, shall remain in open space. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

i. Subject to the availability of the necessary and appropriate State financing for construction of the campus and necessary infrastructure, an approximately one hundred-acre site will be set aside for the establishment of a community college land use. This site shall be located on the easterly side of Hunt Canyon and shall take access from 47th Street East. *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

j. Subject to development of the community college campus described in criteria (i), the following shall apply: *(General Plan Amendment 94-2 adopted by City Council January 8, 1997.)*

1) The following residential densities may be allocated to and/or transferred to the residentially-designated portions of the project site for the purpose of determining a maximum unit count:

Residential acreage	two (2) dwelling units/acre
College acreage	two (2) dwelling units/acre
Golf Course/Open Space	one-half (.5) dwelling units/acre

With respect to the areas designated for Community College and Golf Course/Open Space uses, the proposed dwelling units described above shall represent the entire residential

development potential for those areas, and all dwelling units shall be transferred from those areas to the portion of the site designated for residential uses. No residential uses shall be permitted within the Community College or Golf Course/Open Space portions of the project site.

2) Minimum lot sizes for the interior portion of the residentially-designated areas of the project may be less than of 7,000 square feet in area, provided that all other design policies on the project are met, but shall in no instance be less than 5,000 square feet in area.

k. Residential density may not exceed three (3) dwelling units per acre (gross) within residentially-designated land within the Alquist-Priolo Fault Zone; this policy specifically excludes golf course property, parks and open space, commercial and college property from the calculation of gross densities. (*General Plan Amendment 94-2 adopted by City Council January 8, 1997.*)

Policy L7.1.11: Ensure that development within the Southwest Special Development Planning Area occurs in a logical and orderly pattern, and provides for timely and economical provision of infrastructure, compatibility with existing neighborhoods, sensitivity to environmental and topographic constraints, and establishment of proper buffering around the landfill, by requiring the following area-wide planning and infrastructural studies:

a. Urban development should not occur within the Southwest Special Development Area until area-wide plans establishing backbone infrastructure and carrying capacities of the area are completed to the satisfaction of the City, including road, sewer, water and drainage improvements.

b. Infrastructure plans shall contain an analysis and establishment of municipal facility needs for the area, including, but not limited to, parks, schools, libraries, maintenance yards, public trails and greenbelts, satellite police and fire stations, or similar facilities deemed necessary as a result of urban development within the Southwest Special Development Area.

c. A method for financing infrastructural and facility needs shall be established that equitably allocates costs among property owners who will benefit from these improvements.

- d. Alignments of streets and arterials serving a regional function shall be established to the extent feasible, including but not limited to Avenue S and City Ranch Road.
- e. Plans for sewer line extensions to the area shall provide for gravity flow systems, to the extent feasible.
- f. Development within hillside canyon areas shall provide adequate means of ingress and egress, with secondary access required.
- g. Compatible residential land use designations shall be established adjacent to existing residential neighborhoods.
- h. Land use designations shall be established that provide a minimum 1,000 foot buffer between the ultimate landfill boundaries and residential uses.
- i. Significant ridges within the highly visible upper elevations of Verde Ridge and the Sierra Pelona foothills shall be preserved as natural open space.
- j. Market feasibility studies and locational analysis shall be provided to determine appropriateness of commercial site(s) as part of any Specific Plan or comprehensive plan submittal. Where deemed feasible and appropriate, the commercial uses should be evaluated based on their potential impact on existing land uses, the anticipated service area and proximity to the regional transportation network. Design of any commercial facilities shall be compatible with the overall community design theme.

SECTION 3: IMPLEMENTATION MEASURES

The following section contains specific implementation measures for the City to follow in order to achieve the goals and objectives related to land use as established in this Element.

A. General Plan Land Use Map

The City will adopt and maintain a Land Use Map, which delineates the various land use designations, in suitable locations protected from incompatible uses and hazards, to meet the anticipated development needs of the City while preserving natural resources and maintaining a high quality of life.

B. Zoning Consistency

The City will adopt an interim zoning map to correspond to land use designations established by the Land Use Element, so as to bring zoning into compliance with the General Plan, within nine months after General Plan adoption. The interim zoning map will show parcel specific zone designations consistent with the Land Use Map.

C. City Development Code

The City will formulate and adopt by ordinance a comprehensive Development Code, containing standards for all aspects of land development and land use including site design, use compatibility, access, parking and circulation, lot sizes and dimensions and other development regulations designed to ensure public health, safety and welfare. The Development Code will establish zone districts that are consistent with land use designations in the General Plan Land Use Element. In addition, the Code will address the following specific development issues which have been addressed in various General Plan policies and objectives:

1. Signs
2. Hillside development
3. Dependent housing units
4. Accessory buildings in residential zones
5. Condominium conversions
6. Mobilehome park and subdivision standards, including provisions regarding mobilehome park conversions and on-going maintenance

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7. Rural development standards (including street improvements and street lighting)
8. Subdivisions
9. Zoning for mineral resource extraction areas
10. Minimum residential standards
11. Development standards for Mixed Use-Transitional areas
12. Development standards for the Downtown Overlay District

In conjunction with the comprehensive Development Code, the City will revise and update its zone districts and adopt a permanent Zoning Map superseding the interim zoning map referenced above.

D. Downtown Overlay District

To establish a desired development pattern, enhance economic viability and create a sense of place, the City will establish a Downtown Overlay District on the Zoning Map. This district will establish development standards unique to the downtown area to facilitate ongoing occupancy, re-use of existing structures, and new development consistent with existing development patterns.

E. Development Review Process

1. The City will review and update its development review process pursuant to changes to State law, to ensure that projects conform to applicable development regulations.
2. The City will implement a review process which expedites processing time to the extent practicable.
3. The City will evaluate land use impacts of proposed development in accordance with the California Environmental Quality Act (CEQA).
4. In conjunction with the approval of any development project, the City shall find that such project is in conformance with all applicable policies and maps contained in this General Plan.
(General Plan Amendment 94-3, adopted by City Council August 11, 1994.)

F. Specific Plan Areas

The City will process and/or implement the following specific plans as designated on the Land Use Map:

1. Harris Homes Specific Plan *
2. City Ranch Specific Plan *
3. Ritter Ranch Specific Plan *
4. Joshua Hills Specific Plan *
5. Rancho Vista Specific Plan *
6. Rancho Valley Specific Plan*
7. Hillside Residential Specific Plan*
8. Reserved
9. Antelope Valley Business Park Specific Plan*
10. Palmdale Business Park Center Specific Plan
11. Lockheed Specific Plan*
12. Airport Corridor Specific Plan
13. Palmdale Trade and Commerce Center Specific Plan*
14. Eastside Quarry
15. Palmdale Park South *
16. Auto Center *

G. Special Development/Policy Areas

Areas designated Special Development (SD) on the Land Use Map will require comprehensive master infrastructure planning for the affected area prior to allowing extension of urban services or urban type development. Additionally, all future development within these areas must comply with site specific policies to ensure that unique development constraints of a given area are fully considered. Site specific policies have also been established for several areas containing constraints that warrant specific direction for future development. These areas are identified by an asterisk on the Land Use Map and are referred to as Special Policy Areas. The affected Special Development and Special Policy Areas are generally described as follows:

1. Vincent Hills Special Development Area
2. Bushnell Special Development Area
3. Santa Fe Hills Special Development Area
4. Southwest Special Development Planning Area
5. Area generally located between Lake Palmdale and the Antelope Valley Freeway*

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6. Business Park area generally located north of Avenue S and east of the Antelope Valley Freeway*
7. Area generally located east of Sierra Highway at the intersection of Pearblossom Highway*
8. Ana Verde Hills Area
9. Westside MRE zone

H. Coordination of Land Use Decisions

1. The City will implement systematic notification and consultation procedures with outside entities affected by land use decisions within the City, including adjacent jurisdictions and town councils.
2. In recognition of the rural lifestyles present within portions of the Planning Area, the City has entered into Memorandums of Understanding with homeowners groups in these areas. These MOU's state the City's acknowledgment of the intent of these areas to remain rural in nature. The City will review development proposals adjacent to or within these areas for compatibility and/or consistency with provisions of these agreements, and consider input from the affected residents in making land use decisions.

I. Annexations

The City will evaluate fiscal, infrastructural and land use impacts of proposed annexations to the City, as well as the desires of inhabitants within these areas, including the requirements of any adopted Community Standards District, and consider these issues in making decisions on future annexations.

***Special Policy Area**

J. Air Quality

The City will promote the development of mixed use projects to place complimentary uses in proximity to each other, in order to minimize trips and resulting impacts to air quality. Additionally, the City will work with jurisdictions within the high desert region as well as state representatives to promote development and adoption of a separate air quality management plan for the Southeast Desert Air Basin portion of the South Coast Air Quality Management District.

K. Community Outreach/Public Service

1. In order to promote an effective working relationship between the City and the business community, the City will participate in forums between City representatives and the local business representatives. These meetings are intended to formulate economic and community development strategies to enhance the business climate and quality of life for City residents.
2. The City will notify the Palmdale Community Association and various homeowners' associations on a regular basis of land use decisions and development projects, and consult with representatives of these organizations as appropriate on land use issues.
3. The City will provide and maintain public information materials designed to assist homeowners, developers, and businesses in understanding the development review and permitting process.
4. The City will assess the feasibility of expanding its current computer capabilities to incorporate Geographic Information Systems (GIS) and Computer Aided Drafting (CAD) to assist in permit tracking, general land use information and to allow for efficient maintenance of the Land Use and Zoning Maps.

L. Economic Development

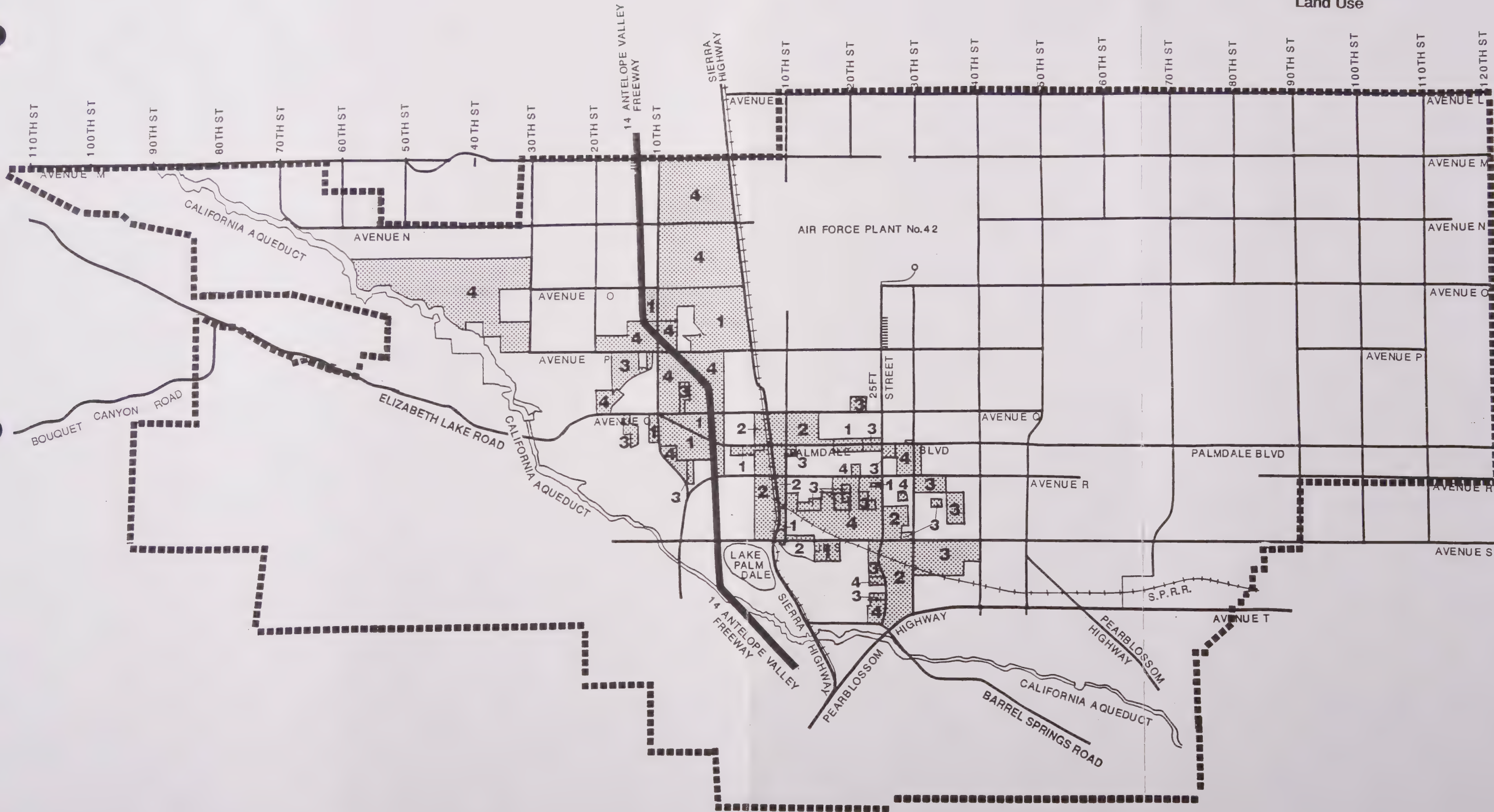
1. The City will compile and maintain a database of demographic and economic information to assist businesses and perspective businesses in evaluating demographic and marketing trends.

Land Use

2. The City will develop an environmental data base to minimize need for the costly site specific environmental studies.
3. The City will develop a municipal facilities master plan which accommodates centralized processing of development permits. This centralization will ensure maximum effectiveness, efficiency and consistency in development processing for homeowners, developers, and members of the business community.
4. The City will assist in the establishment of special financing districts and/or construct infrastructure through reimbursement programs in an effort to promote development of new commercial and industrial development, as deemed appropriate by the City Council.
5. The City will develop and make use of incentive programs designed to promote industrial development in the Palmdale area. This effort includes establishment of a Foreign Trade Zone, Enterprise Zone, and similar programs designed to stimulate economic activity.
6. The City will support and participate in ongoing activities, such as the "Antelope Valley Bridge from Education to Careers", which work to prepare students, through a joint effort of business, industry, government and education, for careers which will enhance the quality of the local, regional and state workforce.

M. Redevelopment

The City will use redevelopment as a tool for establishing and maintaining desired developments. The City of Palmdale has established a Community Redevelopment Agency (CRA) and designated four project areas in accordance with Section 33000 et seq of the Health and Safety Code of the State of California. Exhibit LU-1 shows the designated project areas. This designation gives the City additional funding options to finance improvements necessary to correct physical constraints (ie. flood hazards) and infrastructure deficiencies in support of the development planned for the project areas.



L-46



Legend



REDEVELOPMENT PROJECT AREAS

Redevelopment Project Areas
Palmdale General Plan

Adopted by City Council
1/25/93 EXHIBIT LU-1

N. Subsequent Review

The City will review the Land Use Element every five (5) to seven (7) years to determine if land use designations, goals, policies, objectives and implementation measures reflect the changing needs and desires of the community. Subsequent amendments to the Element may be undertaken as a result.

O. Mobilehome Park Conversion Ordinance

Immediately upon adoption of the General Plan, the City will initiate development of a mobilehome park conversion ordinance. The conversion ordinance shall incorporate provisions for review and approval of park conversions consistent with criteria set forth in Policy L 3.3.4, including, but not limited to, the establishment of a relocation fee, the purchase of non-relocatable units which are occupied by low and moderate income households and the provision of information regarding available spaces in the vicinity of the park.

P. Community Design

The City will develop and adopt a Community Design Element which addresses overall community form and function. Standards and guidelines will be included in this Element to ensure that future development is sensitive to and compatible with the natural desert environment, including climatic, environmental and aesthetic conditions.

SECTION 4: ISSUES AND OPPORTUNITIES

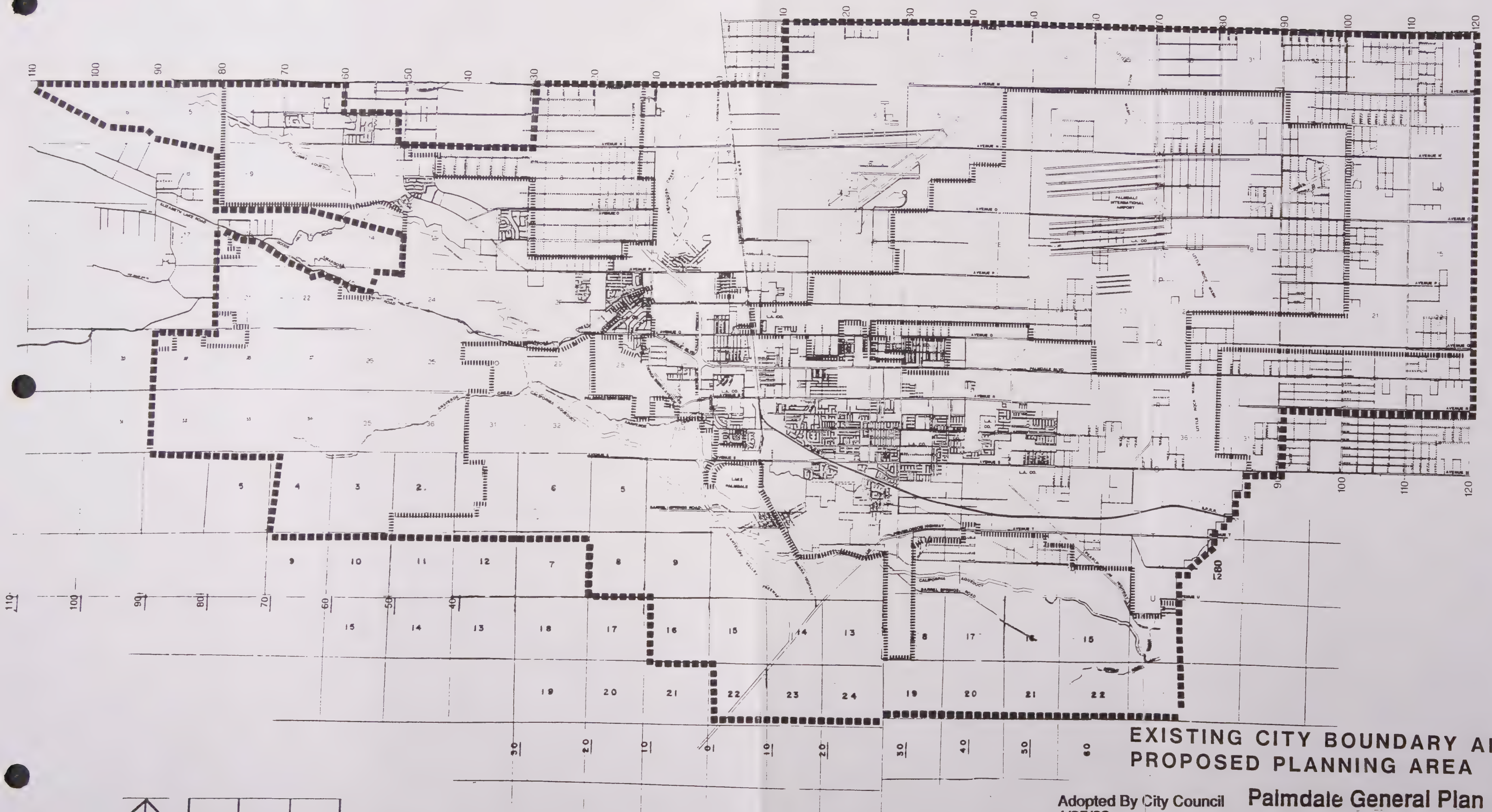
A. Development Patterns

When the City of Palmdale incorporated in 1962, it had a land area of 2.1 square miles. By 1965, the City contained 22.4 square miles, and by 1983 the City had grown to 45 square miles. At the present time, the City encompasses approximately 95 square miles of land, with an additional 79 square miles within the Planning Area (See Exhibit LU-2).

The Planning Area boundaries follow the adopted sphere of influence which extends east to 120th Street East, south to the Sierra Pelona ridgeline and the alignment of Avenue W, west to 100th Street West, and north to Avenues M and L. Within this expanse of 174 square miles, the developed portions of the City occupy a more compact area generally bounded by the Littlerock Wash on the east, the California Aqueduct on the south, and 70th Street West on the west. The northern extent of urban development in Palmdale follows an irregular path from Avenue M in the northwest portion of the City, around existing rural residential areas in the north central portion of the Planning Area, and South of the airport land along Avenue P.

The City's development pattern has been shaped by existing constraints to growth within the Planning Area. To the east, Littlerock Wash forms a natural boundary between urban residential development in Palmdale and rural residential uses in the unincorporated community of Littlerock. This community recently elected a town council which is recognized by Los Angeles County to represent residents on development issues; the town council is currently exploring establishment of rural development standards within Littlerock. It is unlikely that Palmdale will encroach into the Littlerock area within the foreseeable future.

Other established rural communities in or adjacent to the Planning Area have also indicated their desire to maintain lower densities and rural lifestyles. South of the Palmdale Planning Area is the community of Action, and west of the Ritter Ranch Specific Plan is the community of Leona Valley; both communities are represented by town councils and have adopted or are considering rural standards for development in their areas. Within the Planning Area are two other established rural residential neighborhoods; one of these lies south of Pearblossom Highway between 32nd Street East and Cheseboro Road, and the other extends between Avenues M and O-12 and 10th

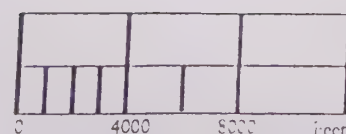


EXISTING CITY BOUNDARY AND PROPOSED PLANNING AREA

Adopted By City Council
1/25/93

Palmdale General Plan

EXHIBIT LU-2



L-49

and 30th Streets West. Both neighborhoods are represented by homeowner's associations who have approved memorandums of understanding with the City of Palmdale regarding development affecting their areas. The City has affirmed its intent to preserve these areas from encroachment by incompatible uses.

The City contains several other unincorporated territories which are functionally "islands" under the County's jurisdiction, although completely surrounded by the City. Most of these islands are developed with single family residential subdivisions and are inhabited. These tracts were developed in the 1950's and 1960's under rural County standards, which in many cases required no curb, gutter, sidewalks or street lights, and permitted individual septic systems. As these subdivisions age, the costs of rehabilitating the houses and retrofitting urban infrastructure into these areas increases. In spite of these concerns, however, the City has recently initiated annexation proceedings over eleven County island areas, totaling approximately 1,600 acres and representing a combined population of 9,000. Completion of some of these annexation efforts may be doubtful, due to the preference of some residents to remain unincorporated. However, to provide for more unified municipal service provision and a more cohesive community, it is the City's goal to annex these areas eventually.

Another factor which has shaped growth patterns in Palmdale is the large expanse of airport land in the north and northeastern portions of the Planning Area. More than 22,230 acres lie within Air Force and City of Los Angeles Division of Airports property, extending from Sierra Highway to 100th Street East between Avenue M and Palmdale Boulevard. While industrial development related to the aerospace industry has occurred at Air Force Plant 42, the airport property is largely vacant, supporting minor agricultural uses and sewage treatment facilities. This property acts as a barrier to through traffic, making property along the north edge of the airport land difficult to access from the rest of Palmdale. However, the future airport uses on the site will provide numerous opportunities for economic development within Palmdale and the rest of the Antelope Valley.

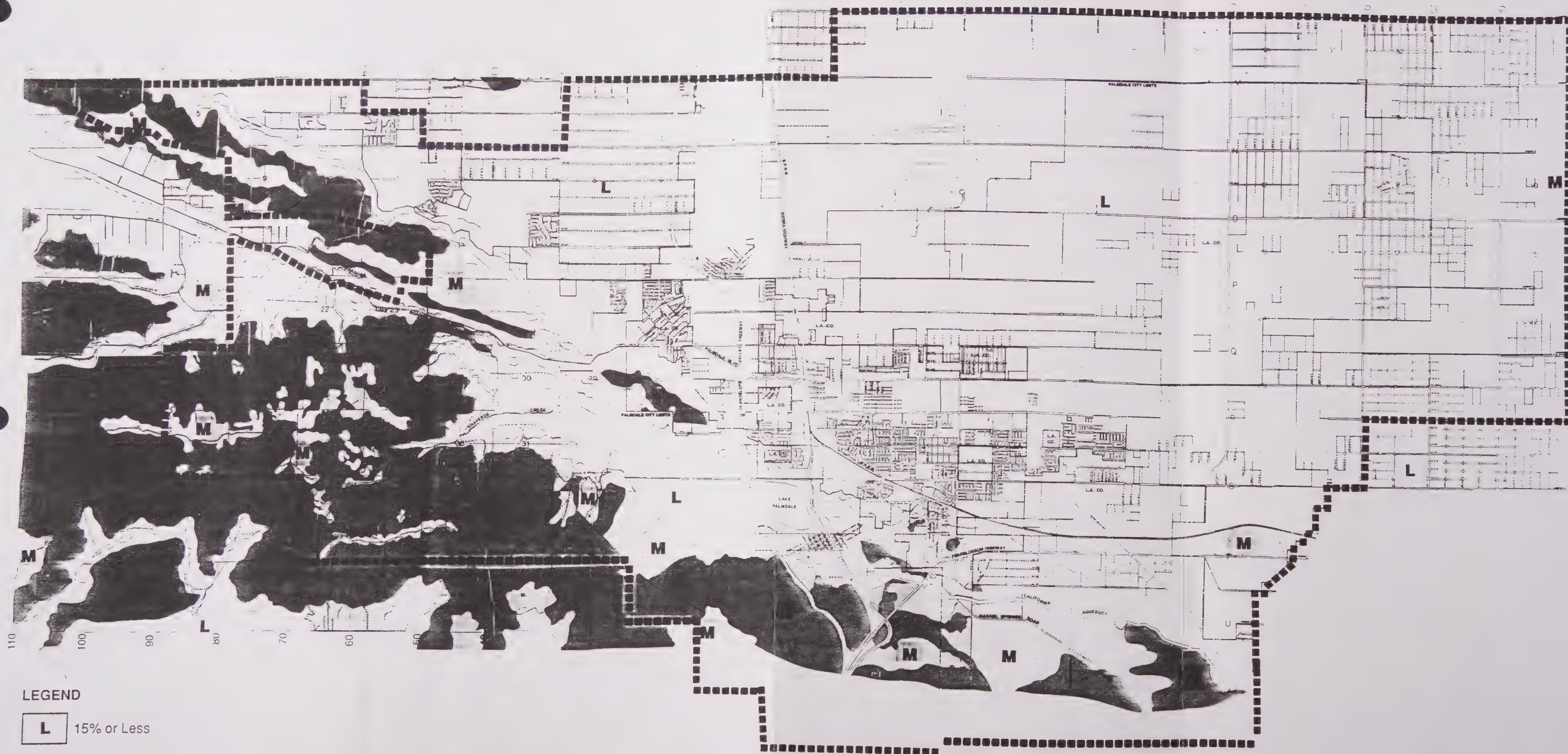
Topographic constraints to development exist along the south and west portions of the City in the form of fault zones and foothills of the San Gabriel and Sierra Pelona Mountains. The San Andreas rift zone traverses the Planning Area from northwest to southeast, and is designated as an Alquist-Priolo special study area requiring development setbacks. Within the rift zone are springs and wetland areas which have

Land Use

been preserved through the development process. A number of natural drainage courses and flood hazard areas traverse the Planning Area. Hills and ridges to the south and west of the developed portions of the City rise to over 4,500 feet in elevation, while developed portions of the City generally range in elevation from 2,400 to 2,700 feet. These foothills form an impressive visual backdrop for the community, which will be maintained through implementation of the City's recently adopted Hillside Management Ordinance. Visual, open space and recreational amenities provided by hillside areas bordering the City have been identified as a significant resource in planning for future development within Palmdale (See Exhibits LU-3 and LU-4).

Along with development constraints, Palmdale's existing configuration has been shaped by major transportation facilities such as the railroad, Highway 138 and the Antelope Valley Freeway. These facilities have influenced the location of commercial and industrial uses within the City, as well as facilitated rapid growth over the last ten years. In particular, the completion of Highway 14 in 1974 provided a major growth inducement for commuters to relocate from the San Fernando Valley and Los Angeles Basin to the Antelope Valley.

Within the more developable portions of the City, including those areas unconstrained by topography, property ownership or environmental constraints, development has occurred in a widely scattered pattern. Dense urban development is interspersed with large expanses of vacant land. Over 75 percent of the land within the Planning Area is vacant (see Table LU-1). Exhibit LU-5 indicates the dispersed distribution of rural and urban development within the Planning Area. In part, the scattered pattern of development reflects the City's transition from a relatively isolated, predominantly agricultural community to an urbanized area. Land in the City's



LEGEND

- L 15% or Less
- M 15-25%
- 25% or Greater
- Not Surveyed

L-52



Adopted by City Council
1/25/93

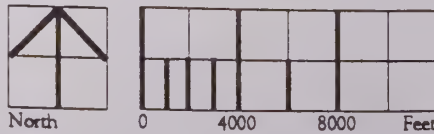
Slope Categories
Palmdale General Plan

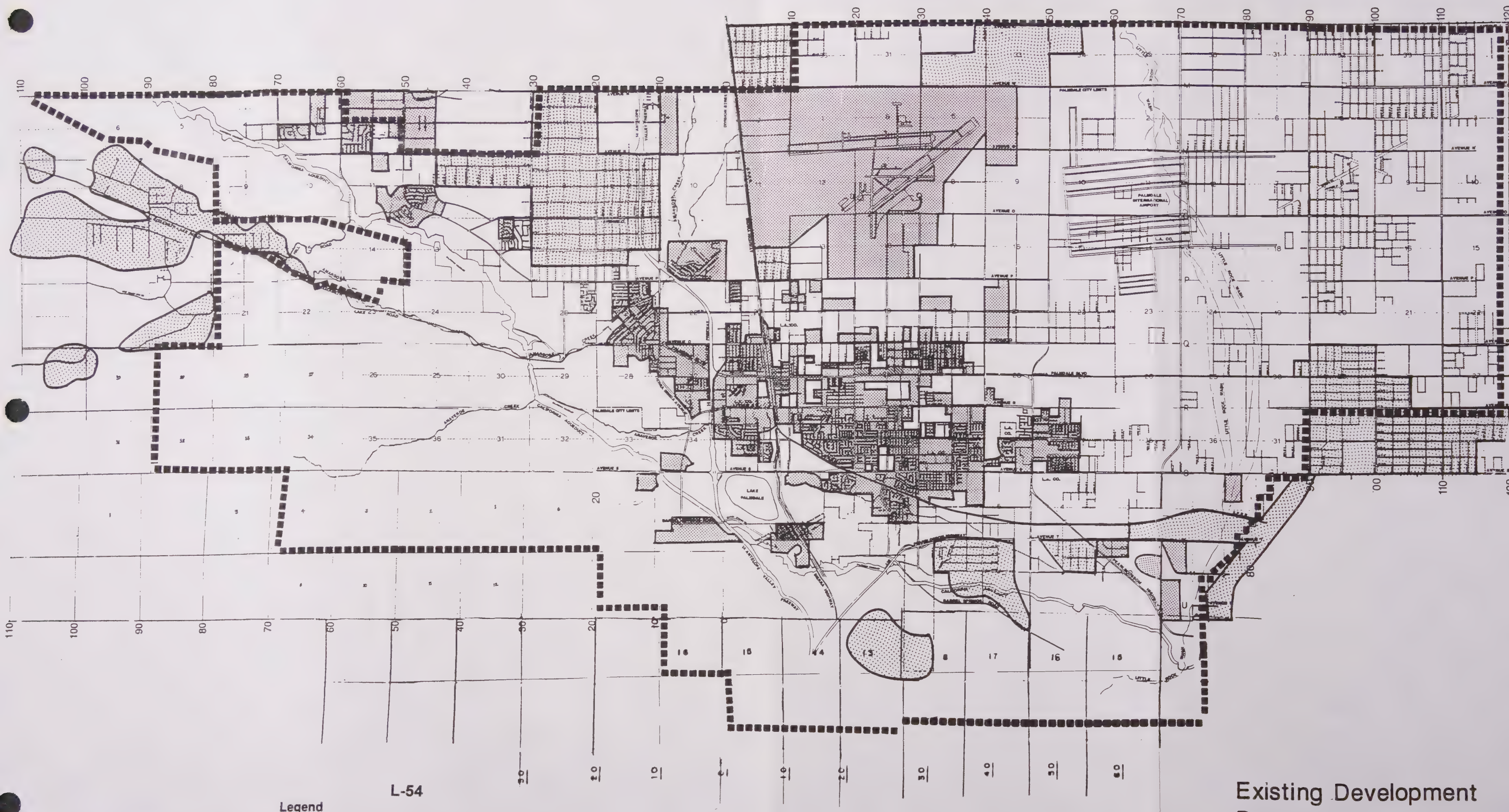
EXHIBIT LU-3



L-53

Adopted by City Council
1/25/93





Legend

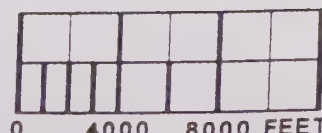


URBAN DEVELOPMENT

SCATTERED/RURAL DEVELOPMENT



North



Existing Development
Pattern

Palmdale General Plan

EXHIBIT LU-5

Adopted by City Council
1/25/93

TABLE LU-1

EXISTING LAND USES IN THE PLANNING AREA

<u>Land Use Category</u>	<u>Acres</u>	<u>Percent</u>
Rural Residential (less than 1 du/ac)	1,342	1.2
Single-Family Residential (1-6 du/ac)	10,841	9.7
Multi-Family Residential (7-35 du/ac)	717	0.6
Mobile home (7-18 du/ac)	244	0.2
Commercial	529	0.5
Industrial	1,842	1.7
Public Facility	494	0.4
USAF Plant 42	5,470	4.9
Agriculture	741	0.4
Parks and Open Space	677	0.6
Vacant	<u>88,630</u>	<u>79.5</u>
Total	111,527	100.0

Source: Michael Brandman Associates from survey and aerial photographs, May 1989

center was subdivided long ago into relatively small lots, suitable to that period and the agriculturally-based economy. Real estate prices in the center of the City are high relative to the size of the lots, and development costs are escalated by the need to retrofit infrastructure such as street widening, and expansion of sewer and water lines. In addition, issues of land use compatibility, access and circulation may complicate land development in infill areas. Thus, there has been a tendency to "leapfrog" over the higher priced land near the center of town, and to develop lower-priced land further out. This trend has been reinforced by the availability of larger tracts of land suitable for single-family subdivisions in these areas. While a large number of affordable housing units have been constructed in this fashion since 1986, the resulting scattered development pattern creates difficulties

for the City in terms of efficient provision of municipal services and capital facilities. Additionally, it is more difficult to create a sense of cohesive community, and the viability of retail commercial uses suffers when they are separated by tracts of vacant land. In the future, the City must identify ways to encourage infill of existing vacant areas surrounded by urban development and create a more compact urban form.

B. Growth Trends

Palmdale has experienced the highest growth rate of any City in California since 1980 (586 percent). Although the rate of growth has diminished from 1989 to the present, indications are strong that residential growth will continue, due to relatively low housing prices as compared with the rest of Los Angeles County. Table LU-2 shows the historic population and growth rates for Palmdale from the year of incorporation through 1992.

TABLE LU-2
PALMDALE POPULATION 1962 to 1992

<u>Year</u>	<u>Population</u>	<u>Annual Growth Rate</u>
1962	7,131	Not Applicable
1965	7,476	1.61%
1970	8,511	2.77%
1975	11,400	6.79%
1980	12,277	1.53%
1985	20,397	13.23%
1989	45,859	31.20%
1990	68,842	50.10%
1991	78,046	13.37%
1992	84,238	7.93%

Source: City of Palmdale, 1988 Demographic/Economic Summary

California Department of Finance Population Estimates, 1989-92

A major issue relating to the City's continued expansion is the establishment of logical limits to urban development. In 1992, the City approved City Ranch and Ritter Ranch, two planned communities totaling 12,400 dwelling units on approximately 13,000 acres southwest of the existing City. The annexation of Ritter Ranch to the City has extended the City limits eight miles west of the existing City center. In another action, the 1992 approval of a General Plan Amendment on the east side of Palmdale will permit construction of over 6,000 new dwellings, extending urban development out to 70th Street East. These two actions on the east and west sides of the City will create an elongated pattern of urbanization trending from west to east, constrained on the north by Lancaster and on the south by the foothills. This growth pattern will present specific challenges to the City in terms of meeting residents' needs for accessible services. Residents may avoid driving over ten miles round trip to visit the City library or recreation center, and request decentralization of some of these municipal services. The City should be planning for branch libraries, recreation facilities, fire stations, sheriff substations and adequate commercial centers to meet the needs of its widely-spread population. This planning has already begun on the west side with plans for a branch library in the Ritter Ranch town center; similar planning should also be undertaken for east side areas.

The limits to Palmdale's expansion over the twenty year planning period are difficult to predict. Change throughout the world, the economy, the political arena and society in general appears to be accelerating, as evidenced by the events of the last two years. Because accurate prediction over twenty years is uncertain, it is recommended that the City review and update its General Plan every five to seven years in order to respond to changing needs of the community. While the land uses shown on the Land Use Plan represent the City's best efforts at predicting ultimate buildout of the Planning Area, a more modest prediction of development trends up to year 2000 would include the following:

- New housing for first time buyers will be constructed on the east side of Palmdale (east of 47th Street). This is one of the remaining areas of flat, developable land in the City where land prices will support construction of entry level housing.
- Residential development will continue to expand south into the Barrel Springs and Vincent Hills areas. The principal constraint to growth in these areas is lack of backbone infrastructure planning and construction. If development interests combine

Land Use

their resources to plan for locations and alignments of major facilities, this area will open up for development.

- Similarly, the southwest portion of the City between Verde Ridge and the southern sphere line, west of Hwy 14 to City Ranch will be a target for urban development if infrastructure is provided. Major improvements to Avenue S, including a freeway interchange upgrade, as well as regional sewage and drainage facility planning, will need to occur prior to opening this area up for development. However, with the approval of City Ranch, development pressures in this area are increasing and should be met with proactive planning of urban infrastructure.
- City Ranch and Ritter Ranch will begin construction on initial phases adjacent to Elizabeth Lake Road. Adoption of Assessment District 90-1 and the associated improvements to Amargosa Creek will also permit development of commercial and industrial areas downstream, west of the Antelope Valley Freeway.
- The City will complete annexation of many of the County island areas within the core areas.
- The City will encourage infill of vacant land and reuse of existing buildings in urbanized areas, in order to strengthen the core areas of the community.

C. Year 2010 and Buildout Projections

Growth projections for year 2010 were based upon extrapolations of growth trends from 1986-1992. Prior to 1986, the City's population growth was slow but steady, reaching a total population of 20,497 in 1985. From 1986 on, however, average annual growth rates increased dramatically, reaching a high of over 50 percent in 1990 (see Table LU-2). The average annual growth rate over the last seven years was 44.71 percent, with an average of 3096 housing units constructed per year over this period. Assuming that housing construction will continue at approximately 3,000 new permits per year through year 2010, the total number of estimated dwelling units at that time is 83,349. Based on the current ratio of 3.17 persons per dwelling unit in Palmdale, total 2010 population is estimated to be 264,216.

Commercial-industrial growth during this period was also estimated using absorption rates established in Palmdale since 1986. Over this

period, approximately 75 acres per year was developed with commercial and industrial uses; an average of 53 acres per year of this land was in commercial retail and office uses, and 22 acres per year in industrial uses. Assuming growth in these two sectors is constant through year 2010, the Planning Area would absorb 954 acres of commercial land and 396 acres of industrial land.

Typical trends in high-growth areas are for the residential growth to occur first, followed by an increase in commercial growth, and finally by an increase in industrial growth. For this reason, new communities have generally been rich in housing but deficient in employment opportunities. This growth pattern can be seen in Palmdale's development over the last ten years. Residential growth skyrocketed in the late 1980's. Significant expansions of the retail commercial sector occurred in 1990-91, with the opening of Antelope Valley Mall, the Wal-Mart/Home Depot Center, the Target Center, and the Auto Mall. In the future, Palmdale can expect its industrial sector to catch up with growth in these two areas. To facilitate increased industrial development, Palmdale has undertaken two specific plans for approximately 4,400 acres of industrial land, and has applied for Foreign Trade Zone and Enterprise Zone status. Based upon natural growth cycles for developing cities, and the incentives for industrial development currently being initiated by the City, it is reasonable to assume that industrial absorption rates may be higher than growth trends since 1986 would indicate. Therefore, the 2010 projection for industrial buildout was revised from 22 acres/year to 30 acres per year, yielding an estimated 540 acres of new industrial development.

Employment estimates were calculated using typical building coverage per acre for commercial and industrial land, and assuming 500 square feet per employee for commercial uses and 1,250 square feet per employee for industrial uses. In year 2010, it is estimated that 32,300 commercial sector jobs and 29,053 industrial sector jobs will be created, for a total of 61,353 new jobs within the City. The ratio of jobs to housing units in 2010 is estimated to be .74.

Land Use

At buildout of the 174 square miles encompassed within the City and sphere areas of Palmdale, under the uses permitted by the General Plan, it is estimated that growth in Palmdale could reach the following levels:

- Number of dwelling units: 139,205
- Total buildout population: 441,280
- Total jobs in commercial sector: 103,708
- Total jobs in industrial sector: 490,470
- Total number of jobs: 594,178
- Jobs/housing ratio: 4.26 jobs per household.

These figures indicate a large proportion of land designated for commercial/industrial uses, in relation to the planned number of residential dwelling units. Under the build-out scenario, Palmdale would evolve from a housing rich-jobs poor community to a job-rich community which could potentially attract workers from a regional area. However, the total development of all industrially-designated land on the General Plan map is uncertain, since over 17,000 acres belong to the Los Angeles Division of Airports; plans for this land are unknown at this time. An assumption was made that up to 30 percent of the airport land might develop as industrial uses, with the other 70 percent reserved for airport uses. In order to maximize opportunities to develop this airport and related rail uses, the City has designated ample industrial land within areas which could benefit from airport development while preventing encroachment of incompatible uses into future airport corridors. Until the airport develops, much of the industrially-designated land will undoubtedly remain vacant. It is the intent of the City to review and update the General Plan every five to seven years; revisions to the proposed mix of commercial, industrial and residential land may occur over time in response to development of the airport facilities.

D. Demographic Profile

The City of Palmdale has experienced tremendous growth, due to the in-migration and birth of approximately 71,961 new residents between 1980 and 1991. Over this period, the total number of households increased from 4,711 households to more than 22,000. As this growth occurred, shifts in the demographic characteristics of the

population also took place, specifically with respect to age, household composition, ethnicity, employment/commute patterns, income, and education. These trends represent an important factor in anticipating issues relating to development and determining appropriate land uses and policies within the Planning Area. Therefore, a brief overview of demographics within the City has been included in this Section of the Land Use Element. Data in this section has been taken from the 1980 and 1990 U.S. Census. Table LU-3 has been included for comparison of demographic data between 1980 and 1990.

The population of the City is relatively young as compared to the State of California as a whole. Median age within Palmdale is 27.6 years as compared to 31.5 years for the state. A majority of residents fall within two age classifications: those under the age of 18 and those between the ages of 25 and 44. Approximately 39 percent of residents are between the ages of 21 and 44. This age group represents persons within the child bearing/rearing years; the large percentage of the population within this age group points to continued population growth via births for the foreseeable future. Approximately 35 percent of Palmdale residents are under the age of 18; of that figure, almost 40 percent are under five years of age. Senior citizens (those residents 65 years and over) comprise only 4.8 percent of the total population.

Households within the City are predominantly comprised of families headed by a married couple. Approximately 65 percent of all households are classified as married couple families, while 81 percent of family households are similarly designated. City residents most commonly reside within the context of a household. In 1990, only 80 persons were housed in group quarters not constituting a household. Average household size increased from 2.68 persons per household in 1980 to 3.17 per household in 1990, reflecting the preponderance of young families in the community. (See Table LU-3)

Ethnically, the City of Palmdale is generally homogeneous, with whites comprising approximately 76 percent of the population. The remaining 24 percent includes black, American Indian, Asian and other ethnicities (See Table LU-3). Persons of Hispanic origin are included in each group and constitute about 22 percent of the population. These figures represent a diversification of ethnicity from 1980, when 89 percent of the population was classified as white and those of Hispanic origin accounted for 9 percent of the total population.

Land Use

As with several other suburban communities within Los Angeles, San Bernardino and Riverside Counties, new residents have been drawn to Palmdale by the availability of relatively low housing costs within a reasonable commuting distance from the Los Angeles basin. It is estimated that 34 percent of Palmdale residents commute to employment centers within the San Fernando Valley and greater Los Angeles area. The combination of limited local job opportunities and higher salaries within the San Fernando Valley and Los Angeles Basin have left many residents with no choice but to commute. Employment within the City has traditionally been related to aerospace and defense industries. However, the population growth of the 1980's brought increases in local jobs related to surface mining and construction. The increased population created new demands for consumer goods and services, which in turn increased local employment opportunities in the service sectors.

Approximately 58 percent of the employed persons in Palmdale work in the professional/technical or manager/official categories, with less than 10 percent of the workforce in each of the categories of clerical, sales, crafts, operatives, service workers or laborers.

According to the 1990 U.S. Census, residents of the City of Palmdale are well educated and have incomes in excess of the median County income. Of residents over the age of 18, 82 percent are high school graduates and 51 percent have attended college. Median household income for the City is \$41,974, or \$7,009 more than the median income of Los Angeles County as a whole.

TABLE LU-3

**COMPARISON OF DEMOGRAPHIC CHARACTERISTICS
BETWEEN 1980 AND 1990**

1980			1990		
DISTRIBUTION OF POPULATION BY AGE					
0-4 Years of Age	903	8%	0-4 Years of Age	8972	13%
5-14 Years of Age	1628	15%	5-14 Years of Age	12900	19%
15-59 Years of Age	3282	62%	15-59 Years of Age	42257	61%
60-64 Years of Age	567	5%	60-64 Years of Age	1524	2%
65+ Years of Age	<u>1075</u>	<u>10%</u>	65+ Years of Age	<u>3264</u>	<u>5%</u>
TOTAL	10,866	100%	TOTAL	68,917	100%

DISTRIBUTION OF POPULATION BY HOUSEHOLD TYPE					
Married Couple	2815	61%	Married Couple	14734	67%
Single Parent-Male	55	1%	Single Parent-Male	506	2%
Single Parent-Female	385	8%	Single Parent-Female	1467	6%
Single Householder	162	3%	Single Householder	987	5%
Non-Family Household	<u>1294</u>	<u>27%</u>	Non-Family Household	<u>4316</u>	<u>20%</u>
TOTAL	4,711	100%	TOTAL	22,018	100%

DISTRIBUTION OF POPULATION BY RACE					
White	10945	89%	White	52101	76%
Black	420	3%	Black	4398	6%
American Indian	208	2%	American Indian	648	1%
Asian	150	1%	Asian	3030	4%
Other	<u>554</u>	<u>5%</u>	Other	<u>8665</u>	<u>13%</u>
TOTAL	12,277	100%	TOTAL	68,842	100%

People of Hispanic Origin are included in each group and are numbered at 1,147 in 1980 (9%) and 15,154 in 1990 (22%).

YEARS OF SCHOOL COMPLETED FOR RESIDENTS OVER 18					
High School (No Diploma)	2569	29%	High School (No Diploma)	7634	18%
High School Graduate	3447	39%	High School Graduate	12858	31%
College (No Diploma)	1863	22%	College (No Diploma)	12518	30%
College Degree	466	5%	College Degree	7525	18%
Post Graduate	<u>405</u>	<u>5%</u>	Post Graduate	<u>1381</u>	<u>3%</u>
TOTAL	8,750	100%	TOTAL	41,916	100%

Source: 1980 and 1990 U.S. Census of Population and Housing

Land Use

Based upon the preceding demographic profile, the City of Palmdale can be characterized as a young, family-oriented community with a well-educated labor force. The community is comprised primarily of young, first-time homebuyers with small children. Although the community is predominantly white, it has gained in ethnic diversity over the last ten years, particularly with respect to Blacks and Hispanics as a percentage of the population. Based on these characteristics, the following needs for future development and land use have been identified:

- Emphasis must be placed on the development of local job opportunities, both for current employees and those who will enter the workforce in the next 10-15 years. Based upon citizen surveys conducted by the City, residents have a high level of concern with the time spent commuting to employment out of the area, and the traffic congestion caused by the lack of local employment.
- The City should work with local school districts to identify current and future school needs. Existing and future sites should be included on the Land Use Map. Future development should be reviewed to ensure that adequate land has been set aside to allow for placement of school facilities. The Public Services Element of the General Plan discusses this issue further.
- The City must continue to obtain and improve sites for parks and other recreational facilities. Improvements and facilities within the park system should consider the demographic characteristics of the community in defining park needs. The City may wish to consider the use of more neighborhood parks to accommodate the school age population and to further define neighborhoods. Additionally, the City should continue to cooperate with the school districts to promote joint use of recreational facilities. In the future, the City may wish to consider construction of a regional recreation or sports complex. These issues will be further addressed in the Parks, Recreation and Trails Element of the General Plan.
- Bikeways and pedestrian trail systems should be developed to connect residential areas to civic facilities, shopping, and recreational opportunities. This issue is also addressed in the Circulation Element, and will be expanded in the Parks, Recreation and Trails Element.

- The City should work toward creating a system of branch libraries to serve the residents, as discussed in the Public Services Element.
- An effort should be made to encourage the incorporation of day care facilities within employment centers and/or individual businesses.
- There is a need to designate adequate areas throughout the City for neighborhood commercial development and encourage the location of appropriate neighborhood businesses to support residential areas.
- Development should emphasize those uses which reflect the characteristics and needs of the City's residents.

E. Land Use Trends and Issues

1. Residential Land Uses

Existing residential development within the City of Palmdale is predominantly single family detached housing on lots of 10,000 square feet or less. According to figures provided by the California Department of Finance, approximately 76 percent of Palmdale households were living in single family detached residences. Table LU-4 summarizes the number and percentage by dwelling type within the City of Palmdale.

TABLE LU-4

RESIDENTIAL DWELLING TYPES

<u>Type of Residence</u>	<u>Number</u>	<u>Percentage</u>
Single family detached	21,539	76%
Multi-family units	4,951	17%
Mobile home units	2,004	7%

Source: City of Palmdale Planning Department/California Department of Finance Estimates 1992

Land Use

Until the mid-1980's, residential land uses were generally located within a core area bounded by Avenue Q, 47th Street East, Avenue S and the Antelope Valley Freeway. This core area contained a variety of residential use types, including apartments, townhomes, and mobile home parks in addition to a high percentage of single family detached residences on lots ranging from 7,000-8,000 square feet in size. More recently, residential development has expanded further to the east, west and south in response to lower land prices, the availability of larger development parcels, and the marketability of hillside (view) lots. Single family residential developments now extend westerly to 70th Street West, and southerly to Pearblossom Highway, and east to 60th Street East. Development west of 50th Street West has been maintained at a density of approximately 2-3 dwelling units per acre, while the southerly expansion has resulted in typical 7,000 square foot lot subdivision with a density of around 4 dwelling units per acre.

The east side of the City of Palmdale is currently under considerable development pressure. Single family tracts have been constructed from 47th Street East to 61st Street East and, as a result of a 1992 General Plan Amendment, proposals for subdivision have been submitted for parcels as far east as 75th Street East.

Multiple family residential uses have been established in two general areas of the City. One of these areas is bounded by Avenue Q, Avenue R, 5th Street East and 15th Street East. Developments in this area range in size from 3-4 unit infill projects to projects containing more than 100 units. Larger projects have typically been located near Palmdale Boulevard between 5th Street East and 10th Street East, where larger vacant parcels existed. This area has historically contained single family residences, which are now intermixed with the multifamily projects.

A second major corridor of multiple family development has occurred along Avenue R, from 15th Street East to 20th Street East. Uses within this area include both apartment projects and a single family attached (townhome) project. Densities within this corridor are around 18-20 units per acre.

Other areas containing concentrations of apartment projects include the areas near Avenue R at Division Street, and south of Avenue S near 10th Street East. Large projects of several hundred units have also been completed within the last several years west of the freeway at 5th Street West and at 25th Street East and Avenue S. Densities of these projects range from 14-18 dwelling units per acre.

There are ten mobile home parks currently located within the City of Palmdale at an average density of 15 dwelling units per acre. Five of these parks are located within a one-half mile radius of the intersection of Avenue R and 40th Street East. Another two parks are located at within the Rancho Vista Specific Plan area, west of 45th Street West. The remaining parks are scattered throughout the City. A majority of these mobile home parks were developed under Los Angeles County and were subsequently annexed to the City.

Residential land uses within the sphere of influence portion of the Planning Area are primarily located within two areas known as the Southside and Westside areas. Each of these areas is rural in nature and is comprised of parcels ranging from 1-5 acres. Most of these lots were created through sectional subdivisions approved prior to enactment of the State Subdivision Map Act. Access to these areas is generally via unimproved local private streets; however some arterial streets exist within these areas, but lack full right-of-way improvements. Each of the areas is the subject of a Memorandum of Understanding approved by the City and affected homeowners' groups, in which both parties agree to preserve rural lifestyles and prevent encroachment by incompatible uses.

Table LU-5
Existing Mobile Home Parks

1. Domenic's Adult Mobile Home Estates
38015 30th Street East
(8.25 du/ac density)
2. Grecian Isle Mobile Home Community
444 East Avenue R
(7.85 du/ac density)
3. Sierra Vista Mobile Home Estates
3255 East Avenue R
(9.6 du/ac density)
4. Sagetree Village Mobile Home Community
3524 East Avenue R
(16.0 du/ac density)
5. Almond Heights Mobile Estates
40701 Rancho Vista Blvd.
(6.6 du/ac density)
6. Rolling Hills Estates
1030 East Avenue S
(6.1 du/ac density)
7. Palmdale Mobilehome Park
38015 65th Street East
(7.8 du/ac density)
8. Ponderosa Vista
5200 Entrar Drive
(5.9 du/ac density)
9. Thousand Elms Mobile Lodge
37311 North 47th Street E.
(9.3 du/ac density)
10. Joshua View Mobilehome Park
6150 East Avenue T
(24 du/ac density)

**Table LU-5
Existing Mobile Home Parks
(Continued)**

- *11. Alpine Village Mobile Home Park
36211 Sierra Highway
(4.24 du/ac density)

- *12. Antelope Valley Center
8807 E. Palmdale Blvd.
(11.5 du/ac density)

- *13. S-B Trailer Park
38525 90th Street east
(11.3 du/ac density)

- *14. Telstar Trailer Park
343 E. Ave. Q
(7.5 du/ac density)

* Mobilehome/Trailer parks within the Planning Area

Land Use

Rates of residential development have diminished since 1989, due in part to a slumping economy and related financial impacts. However, because of Palmdale's location within the Los Angeles area and its large supply of residential property, it is anticipated that residential development will remain strong as compared to Los Angeles County median growth rates.

During the mid-1980's, a major emphasis was given to the construction of larger homes within the City, particularly on the west side. This development was the result of increasing resale values within the San Fernando Valley and the desire of homebuyers for larger homes and lots. As a result, average home prices within the City as a whole steadily rose from mid 1985 to 1989. This "executive" home market depends heavily on move-up buyers reinvesting equity from previous homes; development of this market has depended greatly on property sales within the Los Angeles area. However, this market will not be solely dependent on the greater Los Angeles area in the future. With the tremendous growth within the City and Antelope Valley, a move-up market has been created within the local region.

While the first-time home sales market has remained strong, development of "executive" homes within the City has leveled off; increasingly, developers have been downsizing homes on previously-approved tract maps to attract the first-time buyer. These trends indicate that the Palmdale residential market will be driven by the first time and first step move up buyer for the next few years. These homes are typically 1,700 square feet in size and are located on lots 7,000 square feet in area.

Significant development of multi-family projects is not anticipated for the next several years. Almost 4,500 multiple family units were constructed between 1980 and 1990. The 1990 Census indicated a 12 percent vacancy rate within rental units in the City. While recent figures from the California Department of Finance indicate that the vacancy rate has dropped to 10.1 percent, this figure still represents a 5-7 percent higher vacancy rate than other cities within Los Angeles County. Given the vacancy rate and limited absorption, it appears that there will be less emphasis in the next few years on the construction of new apartments.

Because of these vacancy rates and changes in federal tax laws, a number of property owners have expressed a desire to convert existing apartments to airspace condominiums. Condominium conversions represent a challenge to the City in the form of long term

maintenance and potential reduction of affordable rental housing. Policies regarding conversion are contained within the Housing Element.

As housing costs have steadily risen within the City, new housing types have emerged. Detached condominiums, attached single family residences, airspace condominiums and manufactured home projects are currently being considered. Each of these housing types offers an element of affordability which may not be available in typical single family detached neighborhoods. However, it is not apparent that the population characteristics of the residents and suburban character of Palmdale will accommodate significant absorption of these housing alternatives in the coming years, since recent reductions in housing prices have made detached homes more affordable. Although there appears to be a limited market for these housing alternatives, land uses and policies should be established to allow for the development of non-typical housing units, provided that design, aesthetics and recreational amenities meet the needs of residents within these developments.

In 1992, the City approved City Ranch and Ritter Ranch, two planned communities within 13,000 acres to the southwest of the existing City. These projects will ultimately create an additional 12,400 dwelling units within the City. In addition, other master planned projects including the Santa Fe Hills Specific Plan area have been proposed. These projects represent a trend throughout the State of California toward the development of large properties as master planned communities. The master plan concept incorporates schools and other public uses, recreational facilities, and commercial uses to create cohesive neighborhoods served by conveniently supportive uses. Additionally, master planned communities offer an opportunity to develop master infrastructure plans with a greater economy-of-scale. These residential Specific Plan areas are anticipated to result in the development of a variety of residential types within the City for the next 20 years.

This section has addressed general trends in residential development within Palmdale; further discussions of needs with respect to specific housing types and locations are included in the Housing Element.

2. Commercial and Office Land Uses

a. Types, Intensity and Distribution of Existing Uses.

In the past, commercial activity within the City developed primarily in linear patterns along Palmdale Boulevard and Sierra Highway, serving the need of the adjacent neighborhoods. As the community grew during the 1970's, traveler-related activities such as motels and gas stations continued this pattern creating the Palmdale Boulevard commercial corridor. Today, Palmdale Boulevard and Sierra Highway are established as the City's downtown area and offer a wide variety of general retail and commercial activities such as used car sales, auto repair, appliance and furniture stores, banks, medical and dental clinics, restaurants and motels.

The corridor along Palmdale Boulevard has an average depth of 660' to the north and south, and the developed area extends approximately four miles, from 5th Street West to approximately 35th Street East. The north/south corridor (Sierra Highway) extends from Avenue Q on the north, south to Avenue R, spreading from 6th Street East to 9th Street East. A variety of architectural styles, ranging from Spanish-mission to contemporary, mix with older structures, reflecting four decades of the City's growth.

Rapid residential growth in the mid-1980's created a demand for more neighborhood commercial centers in central Palmdale. In addition, growth in the City's outlying areas resulted in the creation of new neighborhood shopping centers located away from the Palmdale Boulevard commercial areas. In response to this need, successful neighborhood shopping centers were established at key intersections throughout the City including the southwest corner of 47th Street East and Avenue S; the northeast corner of 30th Street East and Avenue S; both the northeast and northwest corners of 25th Street East and Avenue S; the northeast corner of 10th Street West and Palmdale Boulevard; and the northwest corner of 30th Street West and Rancho Vista Boulevard. A typical neighborhood shopping center is located on ten to fifteen acres and contains a supermarket, drug store, restaurants, dry cleaner, doughnut/coffee shop, video rental, real estate office and other similar consumer oriented businesses.

The most recent efforts of the City to attract more commercial activities can be seen in the regional commercial sector. The 127-acre Antelope Valley Mall is located at the northwest corner of 10th Street West and Avenue P. Phase I of the development contains 769,956 gross square feet anchored by four major department stores

and approximately 100 mall stores. Phase II-A, scheduled for completion in the Fall of 1992, will add a fifth department store consisting of 78,000 square feet. Approved plans indicate the remainder of Phase II will construct three additional department stores and additional mall stores. At the completion of Phase II, the Antelope Valley Mall will include approximately 1.48 million square feet of enclosed mall. In addition, a series of outparcels have been created surrounding the mall and contain a restaurant row plus other complementary mall uses. To date, four of these parcels are developed and two more parcels are completing construction. The outparcels will add approximately 152,000 square feet of floor area for a total of 1.64 million gross square feet within the Antelope Valley Mall, providing one of the largest planned malls in Southern California.

Other notable regional commercial activity includes development of the 68-acre Antelope Valley Auto Center. This master-planned retail automotive sales and leasing center can accommodate up to 15 auto dealership franchises. Presently five dealerships are operating in the center selling 15 product lines. The auto center is generally located between Avenue P-8 to the north, Freeway 14 to the east, Avenue Q to the south and 5th Street West to the west.

With the adoption of the 756 acre Palmdale Trade and Commerce Center (PT&CC) Specific Plan in July 1990, the City has clearly indicated its desire to be the Antelope Valley's leader in regional commercial activity. The PT&CC Specific Plan area is generally located between Avenue P to the north, 10th Street West to the west, Palmdale Boulevard to the south and Division Street to the east. One commercial shopping center containing approximately 350,000 square feet of gross floor area at the southeast corner of 5th Street West and Avenue P has been completed since the adoption of the PT&CC Specific Plan. Phase I of a 554,230 square foot shopping center located at the northeast corner of 10th Street West and Avenue P-8, has also been completed, with the opening of 114,336 square feet of space. The Specific Plan promotes regional commercial activity and mixed use development and provides a comprehensive approach to infrastructure planning and financing.

During the past decade, the City has experienced an exceptionally high rate of residential growth spreading east, south and west of the urban core. This growth has resulted in a need for neighborhood commercial centers within these newly developed outlying areas, particularly within the western portion of the City, where revenue loss

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(sales tax leakage) to adjacent Los Angeles County and City of Lancaster commercial areas is occurring.

According to the Semi-Annual Retail Survey conducted by the Charles Dunn Company in Fall 1991, retail development in Palmdale has a slightly higher (9.3 percent) vacancy factor than Lancaster (6.8 percent) and the overall Antelope Valley (8 percent). A high vacancy rate was clearly noticeable in a recent windshield survey conducted by the City of Palmdale Planning Department within the area bounded by Avenue Q, Palmdale Boulevard, Sierra Highway and 10th Street East. There is a need to remedy this vacancy rate, particularly in downtown Palmdale.

Due to the recent development of the Antelope Valley Mall and two other high volume retail centers, the area bisected by the Antelope Valley Freeway from Avenue P south to Palmdale Boulevard has emerged as a regional commercial corridor. Given the City's expansion to the south, east and west, coupled with high growth in the unincorporated County areas east and south of Palmdale, there is a need for additional regional commercial designations on the southeastern fringe of the City.

The City of Los Angeles Department of Airports owns approximately 17,750 acres earmarked for a regional airport within the general area of Avenue M, 30th Street East, Avenue P-12 and 100th Street East. In order to provide access to the future regional airport from the greater Los Angeles area, re-routing of Highway 138 from its current Palmdale Boulevard alignment to a future alignment along Avenue P-8 is being considered by Caltrans. Should the realignment occur, there would be a need for highway oriented commercial uses within the proposed freeway corridor.

A 1991 survey prepared by Antelope Valley Local Development Corporation, entitled "Space - The Final Frontier", indicates that the percentage of employed residents who commute out of the area to work grew from 28 percent in 1987 to 34 percent in 1990. The report further revealed that 50 percent of the recent population growth consisted of commuters. A large number of Palmdale commuters traverse Avenue S and Pearblossom Highway toward the Antelope Valley Freeway. Commercial services along these arterials would save commuters time spent before and after work traveling to tend to their shopping and other consumer needs. This need is further strengthened due to the residential expansion to the south within the City of Palmdale and the unincorporated portions of Los Angeles County.

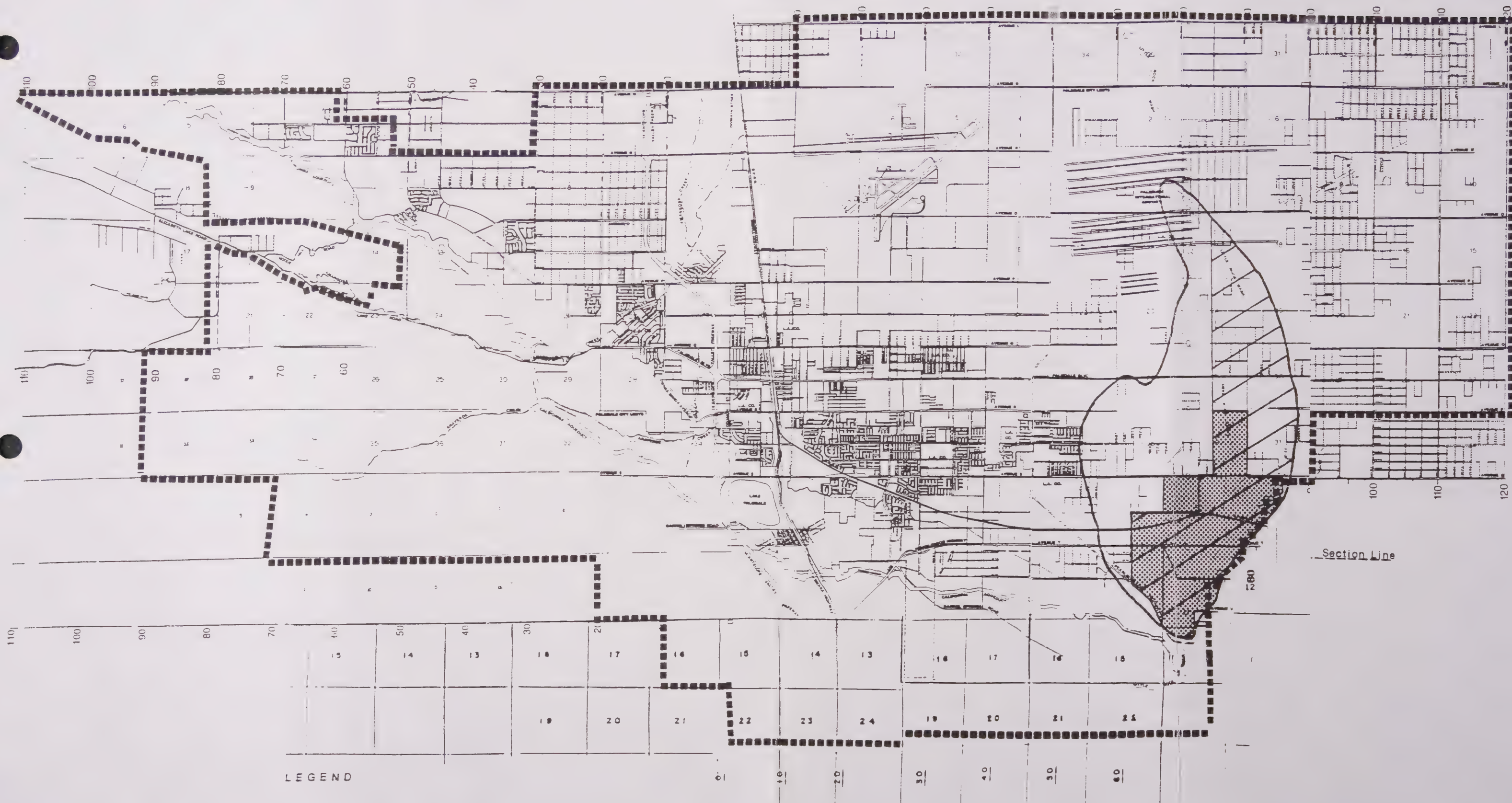
In annexing unincorporated areas of the County, the City often inherits non-conforming commercial structures. There is a need to address various issues, including parking, accessibility and the appearance of these structures.

Storefront retailers include those outlets that display merchandise sold to end-use customers. The strongest sales tax producers in this segment include auto dealerships, department stores, factory outlets and membership warehouse clubs. These retailers attract consumers from a wider trade area. Due to tremendous population growth in Palmdale and the entire Antelope Valley area, Palmdale has a need to attract more department stores, a factory outlet mall and a membership warehouse to serve the community's needs while retaining sales tax dollars in Palmdale.

3. Industrial and Business Uses



Aerospace and related industries dominate the industrial and business sector in Palmdale. U.S. Air Force Plant 42, located within the north central portion of the City, provides facilities for a majority of aerospace industries. Presently, Northrop Corporation and McDonnell Douglas Corporation are located within Plant 42. The Lockheed Corporation leases some facilities within Plant 42 and also owns additional facilities and operates on land located southwest of Air Force property. Rockwell International facilities are located to the southeast of Plant 42 on land leased from Los Angeles City Department of Airports. In addition, there are several other ancillary aerospace manufacturing facilities operating within the community.

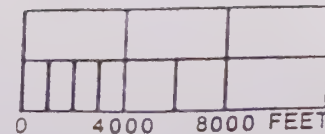
Another predominant industrial use operating in the City of Palmdale is sand and gravel mining and related uses (see Exhibit LU-6). There are six mining operations located along the Little Rock Wash on the eastern edge of the City, and one mining operation located on the west side of the City at 70th Street West, south of the California Aqueduct.



LEGEND

State Designated Significant
Resource Area

-  Mineral Resource
Extraction District
-  Existing Quarry
Operations



L-76

Sand and Gravel
Resource Area
Palmdale General Plan

Adopted by City Council
1/25/93 EXHIBIT LU-6

Other industrial businesses in the City are categorized as multi-tenant and single-tenant users. Currently there are over 550,000 square feet of multi-tenant industrial space located within the Palmdale Planning Area. The majority of these business and industrial parks are located west and south of Plant 42 and range in size from 8,000 square feet up to 80,000 square feet. Additionally single-tenant industrial users from 10,000 square feet to 68,000 square feet operate over 300,000 square feet of industrial business in the City. The majority of these businesses are located in an approximately four square mile area bounded by Avenues P and Q, and Sierra Highway to 30th Street East. A large number of industrial businesses are also located along 6th Street East, many of which have operated since the time of the City's incorporation thirty years ago.

Based on California State Mining and Geology Board Guidelines for Mineral Resource Zones (MRZ) the Palmdale Production-Consumption region falls into MRZ-2 category and extends over 37 square miles within the general area of Little Rock Wash. In addition, there are six concrete batching operations, three asphalt batching operations and one concrete pipe manufacturer located within the Little Rock Wash area.

A majority of industrial land in Palmdale is located north of Avenue Q and east of the Antelope Valley freeway surrounding Air Force Plant 42. The Amargosa Creek runs from south to north within the western portion of this general area. Due to the creek's location, a large portion of the area lies with the exception of the land east of Sierra Highway, within a flood plain, creating a need for major flood control improvements prior to development of the area. In addition, other than Sierra Highway, 50th Street East and 90th Street East, this area lacks a north/south transportation network, resulting in a need to define a network of roadways capable of carrying future traffic volume. Other infrastructure needs are water, gas, and electricity to support the City's future industrial base.

The Antelope Valley's rapid residential growth has created a job-housing imbalance within the area. To address this imbalance, Palmdale is making an effort to attract more businesses to create new jobs; this effort is not without competition. The City of Lancaster, along with other neighboring areas such as the Victor Valley, Inland Empire and San Fernando Valley are competing with Palmdale in attracting business and industry. It is anticipated this trend will continue into the 21st century.

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Small industrial uses continued to grow during the latter part of the 1980's as compared to the large scale industrial uses. Due to a favorable business climate, continuance of this trend is anticipated.

Aerospace research and development will continue to grow in Palmdale. This trend can be seen in the recent efforts by the Lockheed Corporation to relocate their Skunkworks Division from Burbank. Due to recent world events, it is anticipated that changes in research and development within the major aerospace manufacturing companies may be forthcoming. With the resources and knowledge currently available, the aerospace industry has the opportunity to convert its skilled labor force and available manufacturing facilities to develop better means of transportation.

The City of Los Angeles Department of Airports will continue to make progress towards building the proposed regional airport in Palmdale in the years to come. In addition to a regional airport, Caltrans' decision to reroute Highway 138 along the alignment of Avenue P-8 could provide the additional roadway network needed to promote development of the industrial area surrounding Plant 42.

Because of the high competition for new employers, a need exists for the City to develop an incentive portfolio to attract businesses.

There is a need to provide a framework for protection of the mining areas in the City. Operators are experiencing increased pressure from residential development and water purveyors to curtail their activities. Protection of this area is necessary in order to ensure that this valuable resource is available for future generations.

4. Economic Development:

The City of Palmdale has established four Redevelopment Project Areas within its boundaries. These areas, administered by the Palmdale Community Redevelopment Agency, cover 8,500 acres of both developed and vacant properties (refer to Exhibit LU-1). Because a portion of the property tax revenues generated within the project areas is retained by the Community Redevelopment Agency, the City can offer certain incentives to potential developments locating within these areas. These incentives include provision of infrastructure, reduction of processing fees, and loans, among others. The use of public financing to construct backbone infrastructure has been utilized in the past to attract commercial enterprises to the City; funds in several of the project areas have been obligated to pay for previously issued bonds. In the future, the range of incentives which

can be provided will be a useful tool to attract and retain businesses in the community.

Retention of existing business and assistance to new businesses will be critical in the future if job flight from southern California and the United States continues to occur. Presently, the City is aggressively working to attract new industries and commercial enterprises into the City. Programs which support existing local businesses will become increasingly important in the future.

Attracting new businesses to the area will become increasingly challenging as competition heightens between municipalities throughout the Southwest for a limited number of industries. The City of Palmdale has many advantages in this competitive atmosphere: competitive land prices, a well educated workforce, an extensive transportation network, good air quality, and large expanses of areas of raw land. In addition, a variety of activities and programs are being established to increase the City's competitive edge. The City is actively pursuing applications for designation of certain territories as an Enterprise Zone and a Foreign Trade Zone. These types of designations, supported by on-going City programs, will maintain Palmdale's competitive advantage in attracting new businesses to the City.

Commercial buildings within the City's core area are experiencing higher rates of vacancies than those within newer commercial centers. Programs aimed at revitalizing the core area will assist in maintaining the City's economic viability and provide opportunities for related cultural and social activities. Flexible standards, incentives for infill development, and development of a Civic Center Complex and multi-modal transportation facility will help to facilitate business activity in the downtown area.

5. Public Facilities and Open Space

a. Public Facilities

The General Plan Land Use Map recognizes a number of public facilities throughout the Planning Area, including schools, hospitals, water and sewer treatment facilities, the Civic Center Complex, Park and Ride, cemeteries, and the landfill site. The areas presently designated on the land use map as public facilities represent existing facilities or locations where these facilities are presently anticipated to be built. Where precise locations of future facilities have not yet been

identified, these uses have not been shown on the land use plan; therefore, the land use plan does not necessarily identify sufficient public facilities to service the anticipated buildout population of the General Plan. In addition, there are certain public facilities which are not represented on the Land Use Plan at all. These facilities include flood control facilities, maintenance yards, fire stations and sheriff's stations. These facilities are not identified because the locations of new facilities have not yet been specifically determined.

The following discussion describes the land use issues relating to these facilities and the anticipated trends for provision of service as the City develops. Additional information on infrastructure issues is contained in the Public Services Element.

Schools: The land use map presently identifies 29 school sites; an additional 10 sites are located within the Ritter Ranch, City Ranch and Santa Fe Hills Specific Plan areas. In general, these sites are located within or adjacent to developed residential areas. These sites represent built school sites and sites which have not yet been developed but are presently owned or promised to the various school districts. However, even the use of all these sites will not provide sufficient school facilities to accomodate the student population which could be generated by this General Plan. Therefore, additional school facilities will be required. Location of these additional facilities should consider interface issues such as the noise environment, surrounding traffic levels, and compatibility with adjoining uses.

Hospitals: The Land Use Plan identifies two hospital sites. One site contains the Palmdale Hospital Medical Center, located south of Avenue S between 10th Street East and 20th Street East; the other site, located north of Avenue P, west of Division Street, represents a proposed hospital site. Together, these facilities will provide approximately 240 hospital beds for local residents. Considering the population which could result from buildout of the General Plan, additional hospital facilities will be needed to meet the demands on this service. Land use considerations for siting these facilities should include location of fault zones, traffic impacts, and compatibility with adjacent uses.

Water Treatment Facilities: Water Treatment Facilities shown on the Land Use Map include the Antelope Valley-East Kern (AVEK) Facility located at Avenue N, west of 65th Street West; Acton Treatment Plant located on Sierra Highway where it is crossed by the Aqueduct Siphon; and the Palmdale Water Treatment Facility located south of Avenue S near 5th Street East. Potable water from these

treatment plants is stored in numerous water reservoir sites (water tanks) located throughout the City. These facilities provide the bulk of treated water to Palmdale residents and businesses. The present facilities are sized to accommodate current demands for treated water; however, future growth will require expansion of existing facilities or construction of new facilities. In addition, the water delivery infrastructure will also need to be expanded to accommodate the increased demands. Future water treatment facilities may locate near the California Aqueduct in order to take advantage of the imported water it delivers.

Sewer Treatment Facilities: The Los Angeles County Sanitation District's Wastewater Treatment Facility is located north of Avenue P, east of 30th Street East. This facility was recently expanded to a capacity of 8 million gallons per day of effluent. Although this facility is presently capable of processing the effluent generated by the current population, additional expansion or new facilities will be required to support future populations. Location of future wastewater treatment facilities will be constrained by topography and interface issues with adjacent properties. In order to utilize gravity flow infrastructure systems, any future facility will have to be located at an elevation lower than the area it is designed to serve. Therefore, locations toward the northern portion of the City are most appropriate. In addition, concerns regarding odor generation, sludge composting, and spreading areas must be considered in locating a new treatment facility.

Civic Center Complex: The land use map calls out the present Civic Center Complex, composed of the Administration Building, the Public Works Building, the Cultural Center and the Library. In addition, a branch library site has been identified within the Ritter Ranch Specific Plan area. For the most part, the existing government facilities do not provide adequate space for the various City departments. This is evidenced by the fact that the Finance Department, Personnel Department, Planning Department, Engineering Department and the Parks and Recreation Department are located at separate facilities, physically removed from the main Civic Center Complex. Therefore, the existing civic center facilities should be expanded to provide for the efficient administration of the City government, and to accommodate the necessary increases in services which will be demanded by the increased population. This expansion could occur either by creating a large centralized complex, by providing satellite government centers throughout the City, or by utilizing a combination of both techniques. At the present time, the City is committed to

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constructing a Civic Center Complex at the present location of the City Hall facilities. To begin this effort, the City has prepared a Civic Center Master Plan as a starting point to address site planning, space needs, and land acquisition needs. This plan identifies a large, centralized civic center site reaching from Sierra Highway to 10th Street East and from Avenue R to Avenue Q-6. One issue related to implementation of this plan includes the removal/relocation of existing businesses and residential units located within the proposed Civic Center site. Although these residential units are older, they provide housing for low income residents. In addition, there is a need for a multi-modal transportation facility in the downtown area of Palmdale. This facility, depending on its ultimate location, could be connected to the Civic Center Complex through a pedestrian mall concept. These two land uses will help to maintain the economic integrity of the downtown area.

Park and Ride: The existing Park and Ride, located south of Avenue S near 5th Street East, is shown on the land use map. This facility contains 700 spaces to provide off-street parking for commuters traveling to the Los Angeles area. As the population continues to grow, more park and ride facilities may be needed. The location of these facilities should consider access to the freeway and proximity to residential areas where commuters dwell. Park and Rides are discussed in more detail in the Circulation Element.

Cemeteries: There are two cemeteries identified on the Land Use Map; one is located north of Avenue S near 20th Street East, and the other is located south of Avenue S near 25th Street East. Although the Planning Area population is expected to increase dramatically, the demographic profile of the current population does not indicate a substantive need for new cemeteries at the present time. If new cemeteries are located in the Planning Area, their location would have to consider the compatibility with adjacent uses and the suitability of the site considering the surrounding terrain.

Landfill Site: The Antelope Valley Landfill is located on the south facing slope of Verde Ridge. Access to the facility is provided via City Ranch Road. The site now covers 65 acres; however, Los Angeles County recently approved a request to expand the size of the facility by 75 acres, and increase the amount of solid waste which it may accept by 105 million tons. Therefore, for the foreseeable future, this facility will be able to accommodate most solid waste disposal demands generated by the City's population. The facility cannot, however, accept hazardous, infectious or radioactive wastes. Those categories of waste which are generated within Palmdale will have to be

disposed of outside of the Planning Area. The life of the landfill will be prolonged by the City's compliance with Assembly Bill 939 which requires significant reductions in the amount of solid waste which reaches the landfill. However, compliance with this legislation will likely result in a need for additional solid waste facilities beyond the landfill itself. These facilities could include materials recovery facilities, transfer stations, or composting sites. These facilities are not bound to the landfill location; they may be constructed wherever appropriate. The land use issues related to their placement include compatibility with adjacent uses in terms of the increased truck traffic, blowing debris and the generation of objectionable odors which could accompany the operation of these facilities.

With regard to the landfill itself, there are certain interface issues which should be addressed when considering adjacent development. At the present time, the surrounding land use designations provide for development of single family residences. The City Ranch South Specific Plan, located to the west of the landfill property, was required to provide a 1000-foot buffer between the landfill property and residential dwellings. A similar buffer should be considered on other nearby developments in order to minimize interface problems such as blowing dust and debris, vectors, odors, and truck traffic.

Flood Control Facilities: Flood Control facilities are not specifically identified on the land use map; however, these structures are public facilities. The City's Master Plan of Drainage and Drainage Management Plan provide a framework for constructing flood control structures throughout the City. These facilities consist of drainage pipes and channels which conduct storm water runoff to regional detention basins. Implementation of these plans are on-going; there are four regional detention basins constructed throughout the Planning Area, four more are anticipated for construction within the next year, and four more are contemplated by the plans but have no established construction schedule. With regard to the Amargosa Creek Drainage, Assessment District 90-01 is presently proposed to fund many of the necessary drainage improvements. Also, at the present time, small in-tract detention basins are utilized to capture the incremental increase in storm water runoff generated by development. Many of these local basins are being retrofitted for greater efficiency to enhance the capability of the existing storm drainage system.

A challenge to implementing the Master Plan of Drainage will be the need to acquire property for construction of the basins, and easements for conveyance of the drainage flows. As the City

develops, the need for these facilities will increase, yet less vacant land will be available on which these facilities could be constructed. In addition, connecting flood control channel through the built portions of the City will be difficult, in many cases, to accomplish because they will either have to be placed underground or they will displace structures and/or streets.

One means of minimizing the cost of providing flood control is to combine storm water retention with recreational uses so that land acquisition costs are not solely attributed to drainage purposes. The joint use of basin sites as both play areas and detention basins will provide multiple benefits to Palmdale residents at a cost which is less than acquiring separate sites for each use.

Maintenance Yards: As the City assumes the increasing responsibility of maintenance of public areas, the need for public works maintenance yards will increase. At the present time, maintenance equipment is stored and repaired at a small yard located in Courson Park. In addition, a public works maintenance yard has been identified within the City Ranch Specific Plan area, and a yard of approximately 1/2 acre is planned to be included in Palms Park. Additional yards may be required to provide for the equipment and manpower necessary to maintain City parks, streets, and landscaped areas. As these yards are sited, equipment noise and traffic will need to be addressed.

Fire Stations/Sheriff's Stations: Presently, there are three fire stations located within the Planning Area. In addition, a new fire station is proposed on Avenue S near 27th Street East and potential sites within Palms Park at 57th Street East and Avenue R and within both the Ritter Ranch and City Ranch Specific Plan areas have been identified. The Los Angeles County Sheriff's Department has recently established a substation in temporary quarters located at the southeast corner of Palmdale Boulevard and 10th Street East. These facilities are adequate for present needs. However, as the City grows, new fire stations and sheriff's facilities will be necessary.

b. Open Space

The General Plan Land Use Map designates a limited number of areas as open space. These areas include community and neighborhood parks, golf courses, portions of Ritter Ranch, portions of City Ranch, Alpine Butte, and Lake Palmdale. Except for the active parks and golf courses, these areas will be preserved in their present natural condition, with little or no development allowed. At the present time, extensive tracts of vacant land provide for "de facto" open space because development pressures have not yet impacted these areas. Because of the preponderance of vacant land surrounding the developed portion of the City, the physical sense of openness will be retained for many years. In addition, there are other features which will contribute to creating a sense of openness which will offset the regimented perception which often accompanies development. These features include greenbelts, utility corridors, and the California Aqueduct.

There are opportunities to utilize areas which are constrained from development by topography, faults and flood hazards to create an open space network which can support trails and passive recreational uses. These areas are not identified because their locations have not yet been specifically determined. The following discussion will describe the issues surrounding the preservation of open space throughout the Planning Area.

Designated Open Space Areas/Parks: The Land Use Map designates 9,458 acres as open space. Of this area, approximately 1,500 acres will be developed as active parkland or golf courses. These parks will provide active recreational facilities to support the existing population and a large portion of the anticipated population of Palmdale. However, based on the City's standard of five acres of parkland per 1,000 population, additional active park acreage will be required in the future. The goals, objectives and policies for parks and recreation amenities will be more fully provided in the Parks, Recreation and Trails Element.

The golf courses included in the Planning Area include Desert Air Golf Course, the Antelope Valley Country Club Golf Course, and golf courses proposed in the Ritter Ranch, City Ranch and Rancho Vista Specific Plans.

Within the City Ranch and Ritter Ranch Specific Plan where development rights have been transferred from the open space areas

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to the areas proposed for development, the area designated as open space will be preserved in its entirety. Remaining areas within the Planning Area designated as open space are under public ownership and will be maintained in their natural state.

Open Space Network: Throughout the San Andreas Fault zone, the hillside areas, and natural drainage areas such as Little Rock Wash, there are areas constrained from development. These locations contain fault traces, steep slopes, or areas subject to flooding. Although these areas are not suitable for development, they provide an excellent opportunity to create open space buffers in proximity to developed areas. These sites become even more valuable in terms of promoting biological diversity when they act to connect larger open space areas through a system of open space corridors. Therefore, creation of an open space network linking large open space areas should be encouraged.

Vacant Land: At the present time, vacant land comprises the bulk of the acreage within the Planning Area. Although there is little economic value derived from the vacant areas, they contribute significant aesthetic value to the community. The vacant areas help to break up the often monotonous visual effects of development. Though most of the vacant areas support designations which will allow development in the future, it is likely that much of the areas presently vacant, such as the Palmdale Regional Airport site, will remain vacant for many years to come.

California Aqueduct/Utility Corridors/ Greenbelts: The California Aqueduct, the natural gas line easement along Avenue S, and the electrical transmission lines which traverse the western and southernmost portion of the City are examples of physical structures which provide an additional sense of open space. Because these areas will not be developed, they will form a visual break from the uniform character of adjacent development. In addition, these open corridors can provide opportunities for future trail connections throughout the Planning Area. Although there are presently no examples of greenbelts in the City, the General Plan encourages their use in residential areas.



Circulation Element

SECTION 1: INTRODUCTION

The City's circulation system supports vitality and growth. From the system's most basic component, pedestrian walkways, to interstate transit and regional air service, the transportation network connects City neighborhoods to each other and to the region. If the network fails and this linkage is interrupted, the local economy and quality of life in the community may suffer.

Palmdale depends more heavily upon transportation systems for its economic viability than some communities, because many of its residents must commute to jobs outside the region, and because the local economy has been based upon the aerospace industry for many years. Continued growth in Palmdale will be constrained by the ability of its circulation system to accommodate new development. This Circulation Element is designed to provide a blueprint for construction and maintenance of a transportation network which will accommodate growth, support economic development, allow safe and convenient access, and meet regional transportation goals.

The Element is consistent with State law and with the other Elements in the General Plan. The road network is based upon projected development permitted by the Land Use Element. The public transit and trip reduction policies are in conformance with State, County and regional programs. Policies requiring coordination of circulation systems with other public infrastructure conform to the Public Services Element, while others requiring protection of resources relate to the Environmental Resources Element. Projected noise levels as contained in the Noise Element were based upon models developed for the Circulation Element, and Safety Element policies have been incorporated into all aspects of the Circulation Element.

The Element addresses the City's plans to upgrade and expand its pedestrian walkways, surface streets, arterial and regional highways, public transportation, rail service and air service. Recreational trail plans and bikeways are addressed in the Parks, Recreation and Trails Element.

The following sections contain the City's goals, objectives and policies for circulation; implementation programs; and background information identifying opportunities and constraints to circulation planning within City and the Planning Area.

SECTION 2: GOALS, OBJECTIVES AND POLICIES

GOAL C1: Establish, maintain and enhance a system of streets and highways which will provide for the safe and efficient movement of people and goods throughout the Planning Area, while minimizing adverse impacts on the community.

Objective C1.1: Adopt and implement a street and highway plan designed to meet existing and future circulation needs.

Policy C1.1.1: Designate roadways within the Planning Area as local, collector, secondary arterial, major arterial and regional arterial streets, as shown on the Circulation Plan Map, and adopt standards for right of way and design of these streets which will ensure appropriate capacity and performance of each roadway.

Policy C1.1.2: Cooperate with Caltrans and other affected jurisdictions to establish and adopt standards for intra-regional expressways.

Policy C1.1.3: Develop and maintain a computer traffic model based upon the designated network, and assess existing and projected levels of service on streets within the network in making land use decisions and formulating the Land Use Plan.

Policy C1.1.4: Periodically monitor levels of service within the existing street network to identify deficient street segments and intersections, and develop programs to improve service levels where needed.

Policy C1.1.5: Improve the existing street network based upon the adopted Circulation Plan, through implementation of the Capital Improvement Program and through requirements placed upon new development approvals.

Policy C1.1.6: Design the Circulation Plan Map so as to protect existing neighborhoods and/or significant environmental resources, wherever feasible.

Policy C1.1.7: Ensure that right-of-way is reserved wherever possible to implement the adopted Circulation Plan.

Circulation

Policy C1.1.8: Evaluate all land use decisions to ensure consistency with the Circulation Plan.

Policy C1.1.9: Ensure that the cumulative and regional impacts of new development on the circulation system are mitigated to the extent feasible, concurrent with development. Concurrent shall mean that required facilities are installed as needed during various stages of development.

Policy C1.1.10: Develop and adopt standards regulating where raised medians will be required, and where right-of-way and pavement width may be reduced, based upon existing and approved development, access control, and circulation needs.

Objective C1.2: Maintain and expand the arterial and regional roadway system to serve existing and future circulation needs.

Policy C1.2.1: Provide adequate system capacity and efficiency through exclusive turn land additions at arterial intersections and other significant locations.

Policy C1.2.2: Assure safe and efficient arterial operations through careful control of access, signal spacing, median placement, and overall street and development design.

Policy C1.2.3: Protect and increase the capacity of arterial streets through the following measures:

- a. No new direct residential driveway access will be permitted onto regional, major and secondary arterials or highways, except where no other feasible access is available.
- b. For residential development, full intersections will generally be permitted at no less than one-quarter mile spacing along arterial streets. Where it is determined by the City Traffic Engineer that community-wide circulation will not be negatively impacted, full intersections (non-signalized) may be permitted at approximately one-eighth mile spacing.

- c. Except as specified in Policy C1.2.3.b, right turn only access will typically be permitted at approximately one-eighth mile spacing in residential developments, unless no other feasible access is available. Additional right-of-way may be required on arterials for right turn lanes onto local and collector streets, and significant private streets or driveways.
- d. On-street parking will be prohibited on arterial roadways, unless otherwise approved by the City Traffic Engineer.
- e. New arterial streets, and extensions of existing arterial streets, will be designed so as to eliminate jogs and discontinuities and facilitate regional traffic flow.
- f. All secondary, major and regional arterials should be constructed with medians.

Policy C1.2.4: promote development of regional arterial links within the community where needed to serve existing and future needs, including but not limited to the following:

- a. Promote development of grade separations at railroad tracks, in particular, at Palmdale Boulevard.
- b. Coordinate with Caltrans and other affected agencies to expedite rerouting of Highway 138 and widening of State Route 14.
- c. Coordinate with affected agencies and jurisdictions to address the potential for establishing a regional north-south transportation corridor within the west side of the Antelope Valley.

Policy C1.2.5: In order to maintain the efficiency, effectiveness, and safety of Pearblossom Highway, a corridor design study shall be conducted. The design shall incorporate expressway design features to the extent practical. The design shall include, but not be limited to, features such as the following:

- a. Identification of potential traffic signal locations, with application of the maximum practical spacing and limitation of signals to arterial intersections.

Circulation

- b. Where practical, intersections should be graded separated.
- c. Direct driveway and local or collector street access should be minimized. Direct access should be avoided if alternative access is available; maximum driveway spacing (generally 400 feet or more spacing between driveways) should be utilized; left-turn restrictions shall typically apply and right-turn lanes shall be provided; joint access shall be encouraged to minimize the number of driveways.
- d. Intersection designs should include provision of right-turn lanes and double left-turn lanes. Free flow right-turn lanes shall be used at arterial intersections to the extent practical.
- e. Lane widths should be no less than 12 feet and the median should be 30 feet in width or more where feasible.
- f. Consideration for pedestrian and non-motorized vehicle safety shall be incorporated into the design. Features to be considered may include grade separations, setback of facilities from the roadway, and restriction of crossings.
- g. The design shall incorporate aesthetic features and positive advance guide signing.

Objective C1.3: Establish a system of local and collector streets which serve residential neighborhoods while protecting them from intrusion of through traffic flow.

Policy C1.3.1: Promote development of local street patterns which create and unify neighborhoods, rather than divide them, through the following means:

- a. Local street patterns should provide access between subdivisions within a neighborhood, with the exception of through traffic which should be directed onto major and secondary arterials.
- b. The local street system should be logical and understandable for the user. Creation of circuitous and confusing travel paths between internal neighborhood areas and adjacent arterials should be avoided.

- c. The street system should be designed to avoid creating local streets which will ultimately function as collectors. A local street may be determined to function as a collector street when it is or will be used to collect traffic from local streets and convey it to an arterial street. This function of collecting traffic may be due to the street's length, alignment, design or the lack of other streets which may be used to convey traffic to nearby arterials. In general, local streets will be discouraged from extending more than one-half mile so as to avoid serving this function.
- d. Direct residential driveway access onto collectors, or onto local streets which function as collectors, is discouraged.
- e. Local street design should provide efficient connection to the arterial highway system while discouraging excessive speeds and volumes within neighborhoods.
- f. Maximum cul-de-sac length should be 700 feet. "Dog-leg" cul-de-sacs with one or more turns between the bulb and the outlet should be avoided.
- g. To discourage excessive speed and through traffic, street width should not exceed that required for the level of use; right-of-way and pavement widths on local streets may be reduced when it can be demonstrated that such reduction will not negatively impact internal and external circulation. Where such reductions are proposed, the City Traffic Engineer shall make appropriate recommendations to the Planning Commission during review of the tentative map.

Objective C1.4: Adopt policies and standards for street design and construction which promote safety, convenience and efficiency.

Policy C1.4.1: Strive to maintain a Level of Service (LOS) C or better to the extent practical; in some circumstances, a LOS D may be acceptable for a short duration during peak periods.

Policy C1.4.2: Ensure that approvals of new development are correlated with any roadway improvements that would be necessary to maintain the existing level of service. or LOS C, whichever is less, and other performance

Circulation

characteristics applicable to the affected roadways. Development shall not be authorized until measures are in place to construct any necessary improvements; these measures may include, but not be limited to, payment of traffic impact fees or construction of street improvements as required in the conditions of approval.

Policy C1.4.3: Establish street design standards which provide the capacities that are needed to adequately serve the projected travel demand.

Policy C1.4.4: Promote safe circulation and emergency access, through the following means:

a. Require a minimum 26-foot wide paved access from an improved public street to all developments. Individual single family residences (not associated with a tract map) are excluded from this requirement except as deemed necessary by the Los Angeles County Fire Protection District. Access roads shall be increased to 28 feet in width within 200 feet of an intersection with a public street.

b. Two points of ingress and egress should be provided to every subdivision or phase thereof. Exceptions may be granted for small subdivisions where physical constraints make it difficult or impossible to provide a second access point.

c. Medians constructed in arterial streets should be provided with decorative paved crossover points for emergency vehicles, where deemed necessary by the Fire Department.

d. Street naming and numbering should consider ease of use for dispatch of emergency services.

e. The street system should function safely and effectively, without the subsequent need for excessive traffic control devices.

Policy C1.4.5: Locate and design intersections so as to promote safe and efficient circulation, through the following means:

Circulation

- a. Local to local street intersections should be spaced at least 150 feet apart (from centerline to centerline).
- b. Intersections, including knuckles, should generally be perpendicular. Public streets should intersect at a 90 degree angle plus or minus five degrees. Knuckles should be constructed at a 90 degree angle, plus or minus 10 degrees.
- c. Excessive grade variations, curves or other features which impair sight distance at intersections shall be avoided.
- d. Local to collector street intersections should be spaced no less than 300 feet apart, where necessary to provide adequate queuing room for left turn movements on to the collector street. Where left turn movements onto the collector street are not needed, this spacing requirement may be reduced to 150 feet.
- e. On local to local intersections, four-way intersections should be avoided.
- f. For intersections of collector or larger streets, four-way intersections are preferred over offset or "T" intersections.

Policy C1.4.6: Adopt standards for use of private streets, where appropriate; private streets, other than driveways and alleyways typically associated with multi-family development, should be constructed to City standards for public rights-of-way, and should be used only for gated communities.

Objective C1.5: Identify and mitigate existing areas of deficiency within the street system in the Planning Area.

Policy C1.5.1: Develop parking and traffic plans for those neighborhoods which are adversely impacted by parking and traffic.

Policy C1.5.2: Periodically monitor levels of service, traffic accident patterns, and physical conditions of the existing street system, and upgrade roadways as needed through the Capital Improvement Program.

Circulation

Objective C1.6: Ensure that the City street system is adequately maintained, to promote safety and increase the useful life of these facilities.

Policy C1.6.1: Pro-actively maintain all City streets; maintenance levels and schedules should consider long-term costs of street maintenance.

Policy C1.6.2: Require assurance of long-term maintenance for all private streets constructed within the City.

Objective C1.7: Ensure adequate access within the Planning Area for trucks, while protecting incompatible uses from through truck traffic.

Policy C.1.7.1: Review periodically, and update as necessary, City Code provisions concerning truck routes and enforcement.

Policy C.1.7.2: To the extent feasible, route through truck traffic around existing and future residential neighborhoods.

Policy C.1.7.3: Designate truck routes which will serve commercial/industrial areas while minimizing adverse impacts of heavy truck traffic on these uses.

Objective C1.8: Participate in multi-jurisdictional efforts to upgrade and expand the regional road network.

Policy C1.8.1: Cooperate with other agencies and jurisdictions, including Caltrans, Los Angeles County, and adjacent cities, to evaluate the proposed solutions to regional transportation issues relating to the City of Palmdale.

Policy C1.8.2: Coordinate with other jurisdictions to integrate circulation networks.

Policy C1.8.3: Support local, regional, state and federal agencies in identifying and implementing funding alternatives for the City's transportation systems.

Objective C1.9: Plan for the development of arterial streetscapes which present an aesthetically pleasing appearance, promote ease of use for pedestrian and non-

motorized as well as vehicular traffic, and provide maximum public safety through design features.

Policy C1.9.1: Encourage use of landscaping and construction materials which discourage graffiti on walls adjacent to public rights-of-way.

Policy C1.9.2: Encourage the use of street furniture such as seating, light standards, trash receptacles and other similar features to establish design themes on arterial streets and provide amenities for pedestrians, where appropriate.

Policy C1.9.3: Promote unified treatment of arterial streets with respect to medians and parkway treatment, where appropriate. Where a design theme has been established on an arterial street through existing or planned development, promote the extension of that theme along other portions of the street, where feasible and appropriate.

GOAL C2: Reduce the number of trips and vehicle miles traveled by individuals within the Planning Area, to meet regional transportation and air quality goals.

Objectives C2.1: Encourage development and implementation of a variety of measures to reduce trips and vehicle miles traveled by existing and future residents and workers within the Planning Area.

Policy C2.1.1: Require Transportation Demand Management Plans from major employers, as defined by the Air Quality Management District and the Congestion Management Plan.

Policy C2.1.2: Promote the use of ridesharing by providing safe and convenient park-and-ride facilities, accessible to mass transit facilities where available, and by providing public information programs for commuters.

Policy C2.1.3: Require residential developments to contribute towards City programs to reduce vehicle trips.

Policy C2.1.4: Provide incentives for trip reduction measures.

Circulation

Policy C2.1.5: Ensure compliance with the County's Congestion Management Plan.

Policy C2.1.6: Promote alternative means of trip reduction, including telecommuting.

Objective C2.2: Increase the public transit opportunities available to Palmdale residents in order to reduce traffic impacts on streets and highways and provide travel alternatives.

Policy C2.2.1: Promote public transit operations within the Planning Area, and work with transit operators to coordinate schedules, services, service routes and fares.

Policy C2.2.2: Promote the use of public transit by facilitating dedication of access routes and construction of safe and convenient stops with sufficient parking.

Policy C2.2.3: Encourage location of bikeways and storage areas which are integrated with public transit facilities.

Policy C2.2.4: Encourage development of regional rail transit serving the Palmdale area.

Policy C2.2.5: Require provision of bus turnouts for new development, where deemed to be appropriate in consultation with the transit authority.

Policy C2.2.6: Establish a regional transportation center within the City, conveniently located to maximize access to downtown and major commercial centers, which will accommodate a variety of public transportation uses including rail, bus, and shuttle service.

GOAL C3: Encourage use of non-vehicular transportation throughout the Planning Area.

Objective C3.1: Minimize the need for short service-oriented vehicle trips through land use and design strategies.

Policy C3.1.1: Schools, parks and neighborhoods uses should be located within convenient walking distance to residential developments.

Policy C3.1.2: Land uses should be arranged in a manner which increases the opportunity to utilize alternate forms of transportation, such as transit systems, bikeways and pedestrian walkways.

Policy C3.1.3: Promote bicycle accessibility to all public facilities, including parks, schools, and centers of civic activity, to include secure bicycle storage areas.

Policy C3.1.4: Require residential subdivision designs to accommodate convenient pedestrian and bicycle access, both on- and off-site.

Policy C3.1.5: Adopt and implement a bikeway plan as a component of the Parks, Recreation and Trails Element.

GOAL C4: Promote opportunities for rail service to move goods, passengers and commuters into and out of the Planning Area.

Objective C4.1.1: Promote the use of rail service to support industry in the City.

Policy C4.1.1: Designate industrial land uses in areas with potential for freight rail service.

Policy C4.1.2: Work with the Southern Pacific Transportation Company to increase surface street access across the railroad tracks while minimizing impacts on rail service.

Objective C4.2: Encourage extension of passenger rail service to the City of Palmdale.

Policy C4.2.1: Support regional efforts to connect Palmdale Regional Airport to Los Angeles International Airport with a high-speed rail line.

Circulation

Policy C4.2.2: Support regional efforts to provide commuter rail service from Palmdale to the Los Angeles basin.

GOAL C5: Protect and promote a variety of air transportation services within the City of Palmdale.

Objective C5.1: Protect opportunities for full utilization and expansion of Air Force Plant 42.

Policy C5.1.1: Adopt land use designations and policies which minimize encroachment of incompatible uses into space utilized by air operations.

Policy C5.1.2: Implement noise and safety policies as developed by the Joint Land Use Committee and as incorporated into various elements of this General Plan.

Policy C5.1.3: Coordinate development policies and decisions with Air Force Plant 42 representatives.

Objective C5.2: Promote development of Palmdale Regional Airport.

Policy C5.2.1: Promote economic development of land surrounding the airport for large-scale commercial uses, so as to support a market demand for airport services.

Policy C5.2.2: Restrict encroachment of incompatible uses into land affected by future airport operations.

Policy C5.2.3: Promote and support regional transportation planning for routes serving the airport facility, including State Routes 14 and 138.

SECTION 3: IMPLEMENTATION

The City's goals, policies and objectives for development of a transportation system to meet future community needs will be implemented by the following means:

A. Circulation Plan

The City will construct or require construction of roads and transportation facilities in conformance with the Roadway Network, presented in Exhibit C-1. The City will regularly update the Roadway Network and coordinate it with the Land Use Plan, to ensure provision of transportation facilities adequate to support permitted land uses throughout the Planning Area.

B. Traffic Model

The City's traffic consultants prepared a computer model of the City's street and highway network in order to evaluate adequacy of the Circulation Plan to accommodate build-out of the Land Use Plan. The City will maintain this model to reflect changing conditions, as road improvements are constructed and new development takes place. The model will be used to evaluate future proposed changes to the Land Use Element of the General Plan.

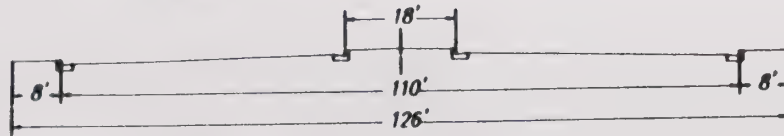
C. Street Standards

The City's adopted standards for typical street sections are established as shown on Exhibit C-2 and Table C-1. Standards specified here in shall be maximum requirements; where existing streets and approved development preclude adherence to these standards, the City will give consideration to modifications to reflect standards under which previous development was approved. Standards will be developed for intersection enhancement where needed. The cross-sections listed on Table C-1 shall be reviewed and updated as needed by the City Public Works Department.

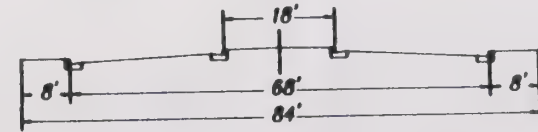
STANDARD STREET SECTIONS

A

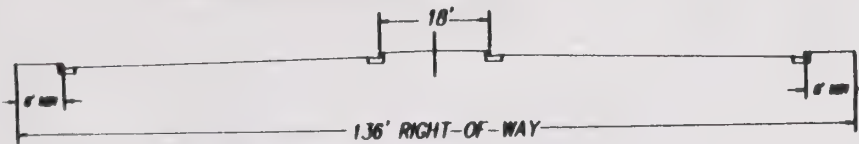
SECTION A1. REGIONAL ARTERIAL
- 8-LANE ARTERIAL
- WITH MEDIAN*



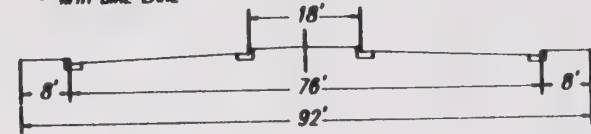
SECTION C1. SECONDARY ARTERIAL
- 4-LANE ARTERIAL
- WITH MEDIANS*



SECTION A2. REGIONAL ARTERIAL
- 8-LANE ARTERIAL
- WITH MEDIAN*
- WITH BIKE LANES - DESIGNS BY SPECIAL STUDY



SECTION C2. SECONDARY ARTERIAL
- 4-LANE ARTERIAL
- WITH MEDIAN*
- WITH BIKE LANE



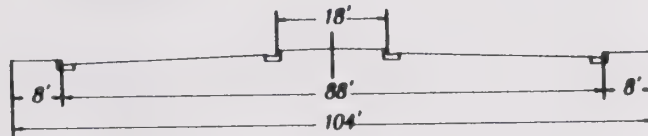
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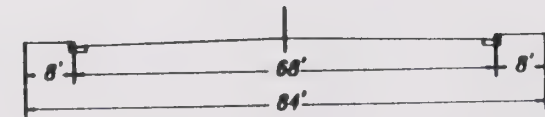
Circulation

B

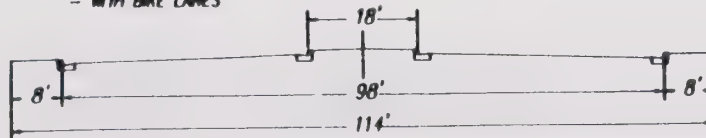
SECTION B1. MAJOR ARTERIAL
- 8-LANE ARTERIAL
- WITH MEDIAN*



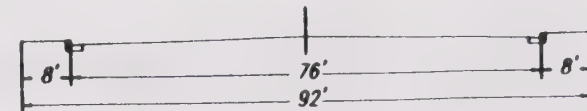
SECTION D1. SECONDARY ARTERIAL
- 4-LANE ARTERIAL
- WITHOUT MEDIAN



SECTION B2. MAJOR ARTERIAL
- 8-LANE ARTERIAL
- WITH MEDIAN*
- WITH BIKE LANES



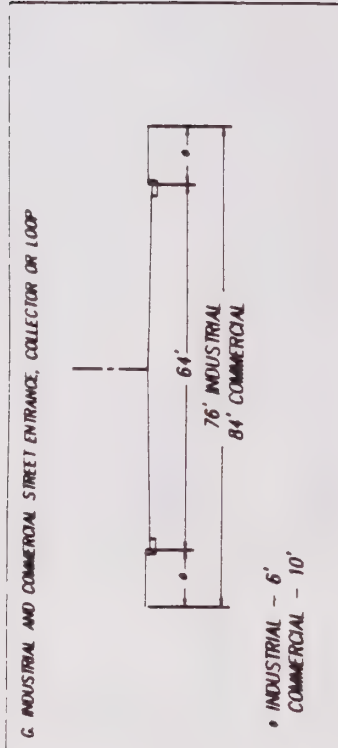
SECTION D2. SECONDARY ARTERIAL
- 4-LANE ARTERIAL
- WITHOUT MEDIAN
- WITH BIKE LANE



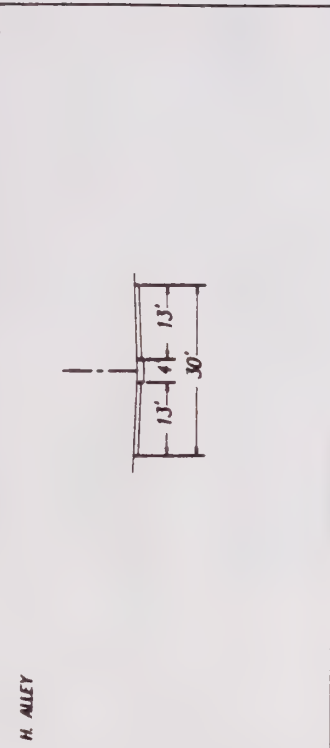
* Medians may be painted or raised.

STANDARD STREET SECTIONS

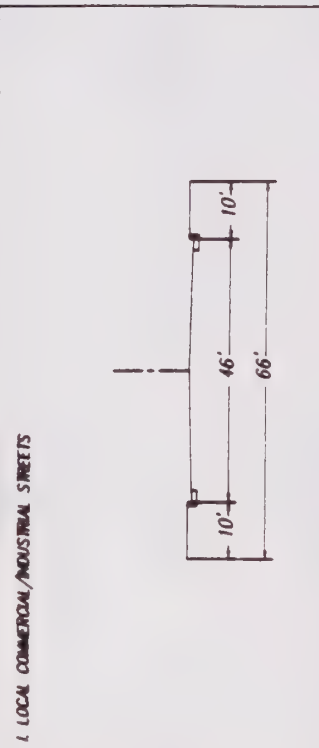
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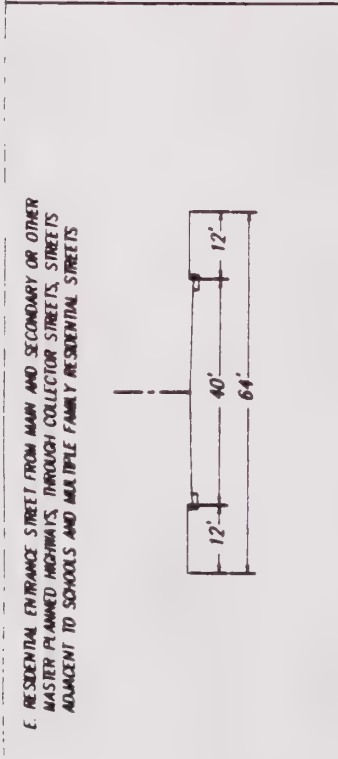
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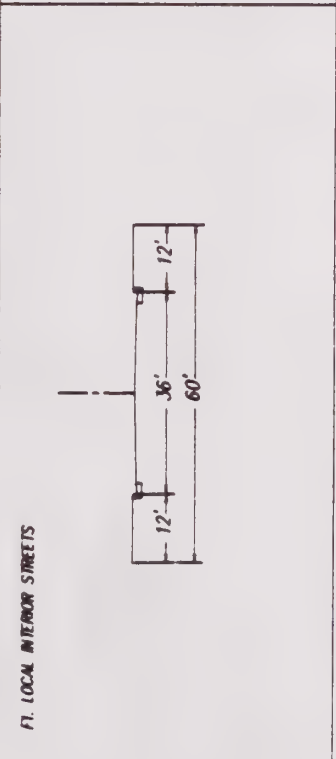
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E



F



F2. RESIDENTIAL CUL-DE-SAC STREETS

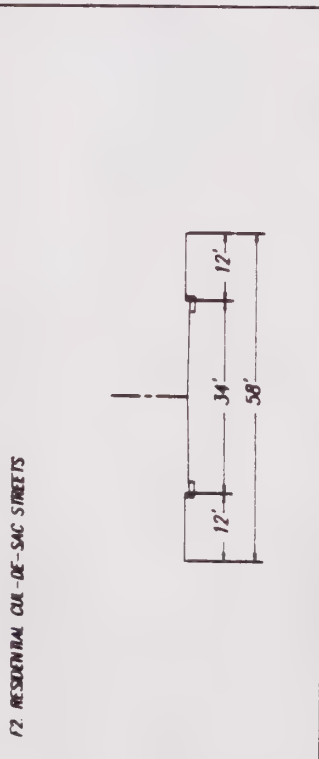


TABLE C-1
ARTERIAL RIGHT-OF-WAY
DEDICATION REQUIREMENTS

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
NORTH-SOUTH ARTERIALS			
90 TH St West	Ave L/Ave M	A	YES
70 TH St West	Ave M/Ave M-8	C	YES
	Ave M-8/Ave N	C	YES
65 TH St West	Ave M/Ave N	C	YES
60 TH St West	Ave M/Ave M-8	B	YES
	Ave M-8/Ave N	C	YES
Godde Hill Road	60 TH St West/Elizabeth Lake Rd	D	NO
55 TH St West	Ave M/Ave N	C	YES
45 TH St West	Ave N/Ave O	C	YES
Ranch Center Dr	Elizabeth Lake Rd/Ritter Ranch Rd	C	YES
30 TH St West	Ave M/Ave N	B	YES
	Ave N/Ave P	B	YES
	Ave P/Ave P-8	B	YES
25 TH St West	Ave O/Ave P	B	YES
	Ave P/Ave P-8	C	YES
	Ave P-8/Elizabeth Lake Rd	B	YES
20 TH St West	Ave M/Ave N	B	YES
	Ave N/Ave O-8	B	YES
	Ave O-8/Elizabeth Lake Rd	C	YES
15 TH St West	Ave M/Ave N	B	YES
	Ave N/Ave O	C	YES
	Ave O/Ave P	B	YES
	Ave P/Ave P-8	C	YES
10 TH St West	Ave M/Ave N	A	YES
	Ave N/Ave P	A	YES
	Ave P/Palmdale Blvd	A	YES
Tierra Subida Ave	Palmdale Blvd/Ave R	B	YES
	Ave R/Ave S	B	YES
	Ave S/Barrel Springs Rd	C	YES
5 TH St West	Ave P-8/Ave Q	B	YES
	Ave Q/Tierra Subida Ave	D	NO

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

Circulation

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
Division St	Ave M/Ave O	B	YES
	Ave O/Ave P	B	YES
	Ave P/1500' N of Ave Q	B	YES
	1500' N of Ave Q/Ave R	B	YES
	Ave R/Ave R-8	B	YES
5 th St East	Ave Q/Palmdale Blvd	D	NO
	Palmdale Blvd/Ave R-8	C	YES
	Ave R-8/Ave S	C	YES
Sierra Hwy	Ave M/Ave P	A	YES
	Ave P/Ave Q	B	YES
	Ave Q/Palmdale Blvd	B	YES
	Palmdale Blvd/Ave R-8	B	YES
	Ave R-8/Ave S	B	YES
	Ave S/1200' S of Ave S	B	YES
	1200' S of Ave S/3000' N of Barrel Springs Rd	B	YES
	3000' N of Barrel Springs Rd/Pearblossom Hwy	B	YES
	Pearblossom Hwy/Antelope Valley Fwy	A	YES
	Ave O-8/Ave Q	C	YES
8 th St East	Ave L/Ave M	B	YES
10 th St East	Ave O-8/Ave P	B	YES
	Ave P/Palmdale Blvd	B	YES
15 th St East	Palmdale Blvd/Ave R-8	C	YES
	Ave R-8/Ave S	C	YES
	Ave L/Ave L-8	C	YES
	Ave L-8/Ave M	C	YES
	Ave O-8/Ave P	C	YES
	Ave P/Ave P-8	B	YES
	Ave P-8/Palmdale Blvd	C	YES
	Palmdale Blvd/Ave R	C	YES
	Ave L/Ave M	B	YES
20 th St East	Ave P/Palmdale Blvd	C	YES
	Palmdale Blvd/Ave S	C	YES
	Ave L/Ave M	C	YES
25 th St East	Ave P/Palmdale Blvd	B	YES
	Palmdale Blvd/Ave R-8	B	YES
	Ave R-8/Ave S	B	YES
	Ave S/4200' S of Ave S	B	YES
	4200' S of Ave S/Barrel Springs Rd	B	YES

(General Plan Amendment 93-2 adopted by City Council October 13, 1993)

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

Circulation

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
30 th St East	Ave L/Ave M	B	YES
	Ave P/Ave Q	B	YES
	Ave Q/Palmdale Blvd	B	YES
	Palmdale Blvd/1300' S of Palmdale Blvd	B	YES
	1300' S of Palmdale Blvd/Ave R	B	YES
	Ave R/1000' S of Ave R	B	YES
	1000' S of Ave R/600' N of Ave R-8	B	YES
	600' N of Ave R-8/Ave R-8	B	YES
	Ave R-8/Ave S	B	YES
	Ave S/1600' S of Ave S	B	YES
35 th St East	Ave L/Ave M	C	YES
	Ave P/Ave Q	C	YES
	Ave Q/Palmdale Blvd	C	YES
	Palmdale Blvd/1200' N of Ave R	C	YES
	1200' N of Ave R/Ave R	C	YES
	Ave R/Ave S	C	YES
	Ave S/1600' S of Ave S	C	YES
40 th St East	Ave L/Ave M	C	YES
	Ave N/Ave P	C	YES
	Ave P/Palmdale Blvd	B	YES
	Palmdale Blvd/Ave S	B	YES
	Ave S/Pearblossom Hwy	B	YES
	Pearblossom Hwy/Barrel Springs Rd	C	YES
45 th St East	Ave L/Ave M	C	YES
47 th St East	Palmdale Blvd/Ave S	A	YES
	Ave S/Fort Tejon Rd	A	YES
Fort Tejon Rd	Ave S-8/Pearblossom Hwy (General Plan Amendment 97-1, adopted by City Council April 10, 1997)	C	YES
		C	YES
		A	YES
50 th St East	Pearblossom Hwy/Mt Emma Rd	EXPRESSWAY	YES
	47 th St E/Pearblossom hwy	EXPRESSWAY	YES
	Ave L/Ave M	EXPRESSWAY	YES
	Ave M/Ave P	A	YES
55 TH St East	Ave P/Crosstown Fwy	C	YES
60 th St East	Crosstown Fwy/Palmdale Blvd	B	YES
	Ave P-8/Ave S	B	YES
	Ave L/Ave N	B	YES
62 nd St East	Ave Q/Ave R	C	YES
	Ave R/Ave S	C	YES
65 th St East	Ave S/Ave T	C	YES
	Ave T/Mt Emma Rd		
	Palmdale Blvd/Ave S		

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

Circulation

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
70 th St East	Ave L/Ave N	C	YES
	Ave N/Airport Fwy	C	YES
	Ave P-8/Ave R	C	YES
	Ave R/Ave S-8	C	YES
75 th St East	Palmdale Blvd/Ave S	C	YES
80 th St East	Ave L/Ave N	C	YES
90 th St East	Ave L/Ave N	B	YES
	Ave N/Palmdale Blvd	B	YES
	Palmdale Blvd/Ave S	B	YES
	Ave S/Ave T	C	YES
110 th St East	Ave T/SR 138	C	YES
	SR 138/Fort Tejon Rd	C	YES
	Ave L/Ave N	C	YES
	Ave N/Ave P	C	YES
	Ave P/Ave S	C	YES
	Ave S/SR 138	D	NO
	SR 138/Fort Tejon Rd	D	NO
	Ave L/Pearblossom Hwy	N/A	YES
120 th St East STATE ROUTE 14	Ave L/Ave N	N/A	YES
	Ave N/Ave P	N/A	YES
	Ave P/Palmdale Blvd	N/A	YES
	Palmdale Blvd/Ave S	N/A	YES
	Ave S/Los Angeles Forest Hwy	N/A	YES
	Los Angeles Forest Hwy/Crown Valley Rd	N/A	YES
	Ave L/Ave M	N/A	YES
Bypass Fwy	Ave M/Ave O	N/A	YES
	Ave O/Palmdale Blvd-Segments to 120 th St E	N/A	YES
Crosstown Fwy	Antelope Valley Fwy/10 th St E	N/A	YES
	10 th St E/25 th St E	N/A	YES
	25 th ST E/40 th St E	N/A	YES
	40 th St E/50 th St E	N/A	YES
	50 th St E/Bypass Fwy	N/A	YES
Airport Arterial	Crosstown Fwy/70 th St E	B	YES
	70 th St E/Bypass Fwy	B	YES

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

Circulation

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
EAST-WEST ARTERIALS			
Avenue L	10 th St E/20 th St E	A	YES
	20 th St E/40 th St E	A	YES
	40 th St E/50 th St E	A	YES
	50 th St E/90 th ST E	A	YES
	90 th St E/120 th St E	A	YES
Avenue L-8	10 th St E/20 th St E	C	YES
	20 th St E/50 th St E	C	YES
Avenue M	90 th St A/80 th St W	C	YES
	80 th St W/60 th St W	B	YES
	60 th St W/30 th St W	B	YES
	30 th St W/15 th St W	A	YES
	15 th St W/Antelope Valley Fwy	A	YES
	Antelope Valley Fwy/Sierra Hwy	A	YES
	Sierra Hwy/Division St	A	YES
	Division St/10 th St E	A	YES
	10 th St E/15 th St E	A	YES
	15 th St E/50 th St E	A	YES
Avenue M-8	50 th St E/90 th St E	B	YES
	90 th St E/120 th St E	B	YES
	70 th St W/60 th St W	D	NO
	60 th St W/53 rd St W	B	YES
	53 rd St W/30 th St W	D	NO
Avenue N	70 th St W/60 th St W	C	YES
	60 th ST W/25 th St W	B	YES
	25 th St W/Antelope Valley Fwy	B	YES
	Antelope Valley Fwy/10 th St W	B	YES
	10 th St W/Sierra Hwy	B	YES
	2000' W of 40 th St E/90 th St E	B	YES
	90 th St E/120 th St E	B	YES
Avenue O	Rancho Vista Blvd/30 th St W	B	YES
	30 th St W/10 th St W	B	YES
	10 th St W/Sierra Hwy	B	YES
	90 th St E/120 th St E	B	YES
Avenue O-8	Rancho Vista Blvd/10 th ST W	C	YES
	Sierra Hwy/15 th St E	C	YES

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

Circulation

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
Rancho Vista Blvd	50 th St W/Towncenter Drive	B	YES
	Towncenter Drive/30 th ST W	B	YES
Avenue P	30 th St W/15 th St W	B	YES
	15 th ST W/10 th St W	B	YES
	10 th St W/Sierra Hwy	B	YES
	Sierra Hwy/8 th St E	B	YES
	8 th St E/20 th St E	B	YES
	20 th St E/30 th St E	B	YES
	30 th St E/50 th St E	B	YES
	90 th St E/110 th St E	B	YES
Avenue P-8	30 th St W/25 th St W	C	YES
	25 th St W/15 th St W	C	YES
	15 th St W/SR 14	C	YES
	SR 14/3 rd St E	C	YES
	3 rd St E/Sierra Hwy	C	YES
	Sierra Hwy/10 th St E	C	YES
	10 th St E/40 th St E	C	YES
	40 th St E/50 th St E	C	YES
	50 th St E/90 th St E	C	YES
Avenue Q	Palmdale Blvd/Division St	B	YES
	Division St/6 th ST E	B	YES
	6 th St E/Sierra hwy	B	YES
	Sierra Hwy/20 th St E	B	YES
	20 th St E/40 th St E	B	YES
	40 th St E/60 th St E	B	YES
Santa Fe Hills Dr	Elizabeth Lake Rd/25 th St W	C	YES
Elizabeth Lake Rd	Godde Hill Rd/Bridge Rd	SPECIFIC PLAN	YES
	Bridge Rd/25 th St W	SPECIFIC PLAN	YES
	25 th St W/Foxholm Dr	A	YES
	Foxholm Dr/Palmdale Blvd	A	YES
Palmdale Blvd	Elizabeth Lake Rd/Aventelope Valley Fwy	A	YES
	Antelope Valley Fwy/Division St	B	YES
	Division St/30 th St E	B	YES
	30 th St E/47 th St E	B	YES
	47 th St E/70 th St E	B	YES
	70 th St E/120 th St E	B	YES
City Ranch Rd	Ritter Ranch Rd/Ranch Center Dr	SPECIFIC PLAN	YES
	Ranch Center Dr/Bridge Rd	SPECIFIC PLAN	YES
	Bridge Rd/Tierra Subida Ave	SPECIFIC PLAN	YES

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

Circulation

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
Avenue R	Tierra Subida Ave/Division St	B	YES
	Division St/6 th St E	B	YES
	6 th St E/25 th St E	B	YES
	25 th St E/30 th St E	B	YES
	30 th St E/47 th St E	B	YES
	47 th St E/60 th St E	B	YES
	60 th St E/70 th St E	B	YES
	70 th St E/90 th St E	B	YES
Avenue R-8	Division St/5 th St E (<i>General Plan Amendment 97-1, adopted by City Council April 10, 1997</i>)	C	YES
		C	YES
	6 th St E/10 th St E	C	YES
	10 th St E/25 th St E	C	YES
	25 th St E/1200' W of 30 th St E	C	YES
	1200' W of 30 th St E/1200' E of 35 th St E	C	YES
	1200' E of 35 th St E/40 th St E	C	YES
	40 th St E/1800' E of 47 th St E	C	YES
Ritter Ranch Rd	1800' E of 47 th St E/67 th St E	SPECIFIC PLAN	YES
	Elizabeth lake Rd/City Ranch Rd	SPECIFIC PLAN	YES
	City Ranch Rd/Ranch Center Dr	SPECIFIC PLAN	YES
Avenue S	Ranch Center Dr/Bridge Rd	SPECIFIC PLAN	YES
	Bridge Rd/Tierra Subida Ave	B	YES
	Tierra Subida Ave/Antelope Valley Fwy	B	YES
	Antelope Valley Fwy/Sierra Hwy	B	YES
	Sierra Hwy/10 th St E	B	YES
	10 th St E/20 th St E	B	YES
	20 th St E/25 th St E	B	YES
	25 th St E/35 th St E	B	YES
	35 th St E/47 th St E	B	YES
	47 th St E/3800' E of 47 th St E	B	YES
	39\800' E of 47 th St E/60 th St E	B	YES
	60 th St E/70 th St E	B	YES
	70 th St E/90 th St E	B	YES
	90 th St E/120 th St E	C	YES
	40 th St E/47 th St E	C	YES
Pearblossom Hwy	62 nd St E/70 th St E	A	YES
	Sierra Hwy/Barrel Springs Rd	A	YES
	Barrel Springs Rd/40 th St E	A	YES
	40 th St E/47 th St E	A	YES
Avenue T	47 th St E/Ave T	B	YES
	Pearblossom Hwy/90 th St E	B	YES
	90 th St E/120 th St E		

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

Circulation

ROADWAY LINK	FROM/TO	CROSS-SECTION ID-SEE GRAPHIC	MEDIAN
Avenue T-8	40 th St E/57 th St E	C	YES
	80 th St E/90 th St E	C	YES
	Ave S/Tierra Subida Ave	C	YES
Barrel Springs Rd	Tierra Subida Ave/Sierra Hwy	C	YES
	Sierra Hwy/West of 25 th St E	C	YES
	West of 25 th St E/25 th St E	C	YES
	25 th St E/Pearblossom Hwy	C	YES
	Pearblossom Hwy/40 th ST E	C	YES
	40 th ST E/Cheseboro Rd	C	YES
Old Harold Rd	25 th St E/Barrel Springs Rd	C	YES
SR 138	Ave T/90 th St E	A	YES
	90 th St E/120 th St E	A	YES
Mt. Emma Road	47 th St E/90 th St E	C	YES

*Size, type and location of medians may be determined at the time of development based upon existing and approved development, access control, and circulation needs.

D. Land Use Plan

Through the Land Use Element, the City will establish uses which maximize opportunities for expansion of rail, air and transit facilities, and minimize land use conflicts with these facilities. The Land Use Plan also establishes strategies to reduce vehicle trips through placement of land uses.

E. Development Review Process

Through its review of development proposals, the City will require right-of-way dedications and street improvements (including but not limited to widening, paving, turn lanes, intersection improvements and traffic control devices) as conditions of approval, based upon needs generated by the development.

F. California Environmental Quality Act

The City will conduct environmental review of new development proposals and City-initiated capital improvements, to ensure that traffic and transportation-related impacts are mitigated to a level of insignificance wherever feasible.

G. Congestion Management Plan

The City will require developers to comply with the Congestion Management Plan (CMP) adopted by Los Angeles County Transportation Commission. The City will comply with goals, directives and programs contained in the CMP as they relate to City responsibilities.

H. Right-of-Way

Through the Land Use Plan and development review process, the City will reserve or limit uses within future right-of-way needed for roadways.

I. Capital Improvements

1. The City will annually prepare and implement a five-year Capital Improvement Program addressing road improvement projects.

Circulation

2. The City will continue to pursue a pro-active program of signalization and intersection improvements.
3. The Public Works Department will regularly monitor service levels throughout the City, in order to identify deficiencies in service and program improvement schedules.

J. Transportation System Management

The City will implement Transportation System Management techniques to increase capacity of the existing road system, including but not limited to signal coordination, access controls, and parking restrictions.

K. Transportation Demand Management

Consistent with the CMP and the Air Quality Management Plan, the City will adopt and implement a Transportation Demand management (TDM) ordinance which includes but is not limited to the following measures:

1. Support a computerized rideshare service to facilitate creation of carpools between persons living and working in the same vicinities.
2. Provide information to businesses on how to establish carpool and vanpool programs.
3. Continue to operate the City's Park-and-Ride facility at Highway 14 and Avenue S, and participate in construction and operation of an additional facility at Sierra Highway and Highway 14.
4. Prepare a long-range park-and-ride plan for future facilities within the City, including methods of financing these facilities.

L. Transit

The City will continue to participate in the Antelope Valley Transit Authority to promote implementation of the Antelope Valley Transit Needs Plan, and other plans and programs as developed in the future.

M. Commuter Transportation

The City will explore opportunities for linking commuter bus service from Palmdale to rail transit services in Santa Clarita, to convey commuters to the Los Angeles basin.

N. School Safety

The City will continue to coordinate with school districts within the Planning Area to provide traffic safety controls and devices near schools. The City will also work with the districts to plan for adequate pick-up and drop-off areas near schools for parents and buses.

O. Truck Routes

The City will evaluate the Municipal Code periodically to determine the adequacy of existing designated truck routes and to address the need for modified truck routes within various areas of the City.

P. Parking

The City will enhance street capacity by addressing parking needs as follows:

1. Develop a downtown parking plan as part of its downtown revitalization effort.
2. Prohibit parking on all arterial streets.
3. Periodically reevaluate off-street parking requirements to ensure that adequate parking is provided for businesses within Palmdale.

Q. Bikeway Plan

The City will adopt and implement a Bikeway Plan to encourage non-vehicular travel throughout the Planning Area.

Circulation

R. Financing

The City will pursue all feasible funding sources to support improvements to the Circulation System, including traffic impact fees, state and federal funding program, and public financing methods. The City's Traffic Impact Fee Assessment and Master Traffic Level Maintenance Plan will be implemented, and periodically evaluated and updated, to support collection and expenditures of developer fees.

S. Inter-Agency Coordination

The City will continue to cooperate with other jurisdictions to develop and implement solutions to regional transportation needs.

T. Streetscape Design Guidelines

The City will develop, adopt and implement guidelines for design of medians, parkways and associated facilities through the Community Design Element of the General Plan.

U. Westside Transportation Corridor

The City will, through input on the Antelope Valley Sketch Plan, assist in evaluating the potential location, size and designation of a regional north-south transportation corridor within the west side of the Antelope Valley.

V. Pearblossom Highway

The City will prepare a design study for the Pearblossom Highway corridor. The study will consider existing rights-of-way, established and proposed land use patterns, accommodation of pedestrian and bicycle facilities and design alternatives that ensure pedestrian safety, and alternative means of addressing circulation/access concerns including the potential redesignation of Pearblossom Highway to an Expressway.

SECTION 4: ISSUES AND OPPORTUNITIES

The purpose of the Circulation Element is to evaluate the transportation needs of the City and present a comprehensive transportation plan to accommodate those needs. The Element addresses surface streets and highways, air and rail service, public transit and transportation management issues. Background information and planning issues relating to each of these topics are contained in this section of the Element.

A. Street and Highway System

A city's roadway system consists of a wide range of transportation facilities which serve two basic functions: mobility and land access. Mobility means providing the ability for motorists to travel between their points of activity. Land access means providing for parking, storage or other types of driveway access at the final destination. A circulation network is composed of facilities that emphasize mobility or access to different degrees. The following types of facilities are typically defined:

- **Freeway.** Mobility with very limited access.
- **Expressway.** Mobility with more frequent access to arterial streets than a freeway, but no direct land access.
- **Arterial.** Mobility with access to collectors, some local streets and major traffic.
- **Collector.** Connects local streets with arterials and also provides access to adjacent land uses; thus balancing mobility with access.
- **Local.** Provides access to adjacent land uses exclusively.

Street and highway systems are designed in the above manner as a means of achieving the goals of mobility and access in an efficient manner. While it might be desirable to provide both access and mobility on all facilities, no one would favor arterial street standards for all facilities in a circulation system. The designation of the above types of streets thus has a functional and economic value to the community.

Problems occur when a street designed to provide mobility is expected to provide for land access as well. Land access typically requires driveways or local streets to move

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vehicles off the street and onto the property in question. When too many access points are provided on a street intended for mobility, friction and conflicts occur between vehicles needing access and vehicles using the facility for mobility.

The different functions of various roadways require specific methods of analysis and design. Each street type must meet different traffic capacity and access requirements. For example, local streets are not designed or intended to serve as regional thoroughfares. For this reason, various street types are treated separately in the following discussion. Prior to discussing existing and future roadway conditions in the Planning Area, however, a brief overview of the methodology used to analyze the street network is provided.

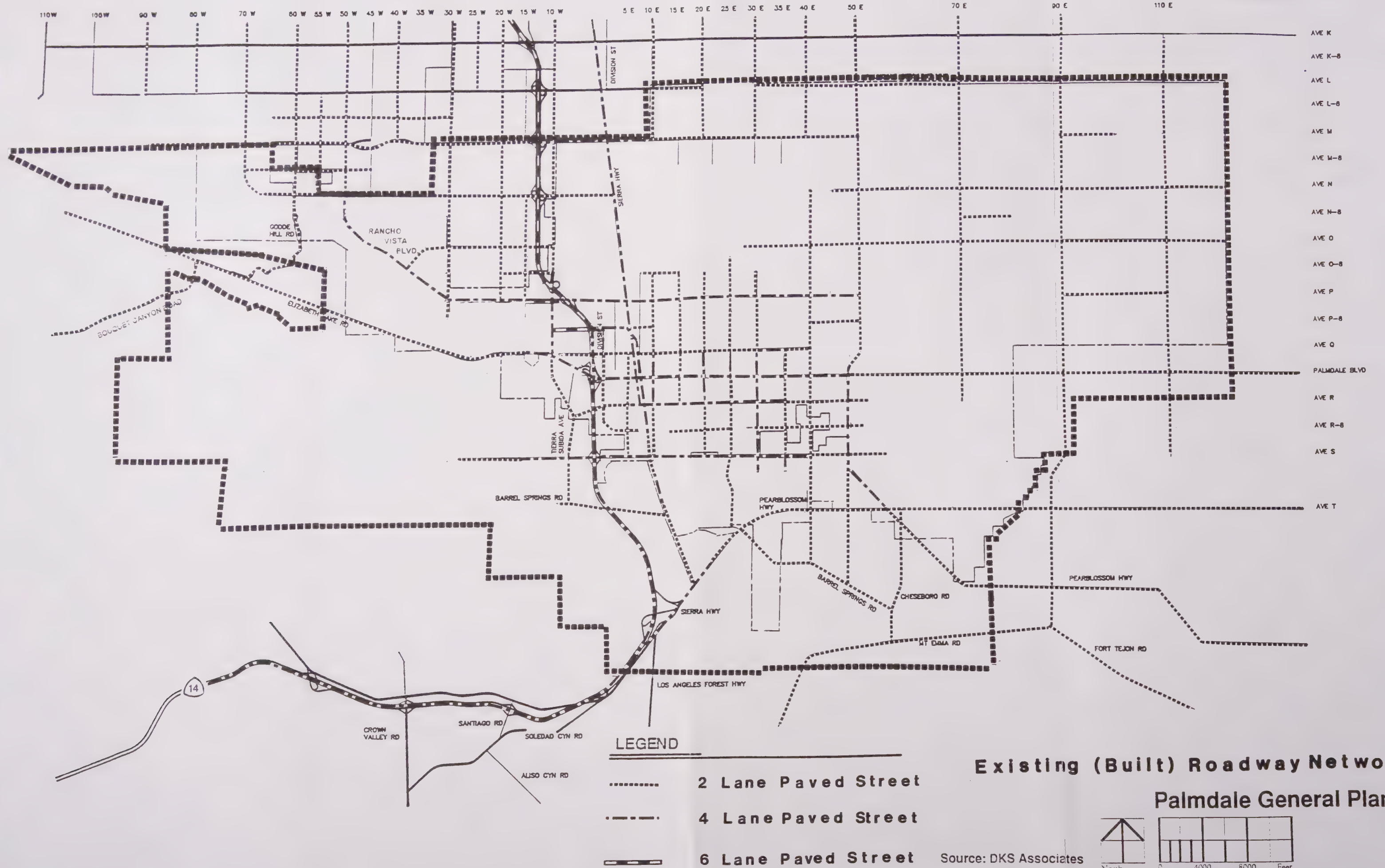
1. Circulation Analysis Methods

Five steps were involved in developing the roadway component of the Circulation Element: (1) documenting existing conditions and assembling a factual data base; (2) the development and validation of the transportation model, which was used to forecast future usage of alternative circulation plans; (3) the identification of problems, opportunities and issues; (4) testing and evaluating alternative improvement plans; and (5) the selection and refinement of the recommended circulation plan. These steps are briefly described below.

a. Existing Roadway Analysis

Palmdale's existing roadway network and functional classification system is illustrated in Exhibit C-3. Annual daily traffic volumes for most of the arterials within the City (1990) were obtained through traffic counts, to assess existing levels of service.

The evaluation of Palmdale's circulation system focused on two major criteria: capacity and connectivity. Capacity refers to the ability of the street system (roadways and intersections) to adequately serve the demand placed on it. It is a measure of how well the mobility needs of the City are provided for. Connectivity is defined less precisely as a measure of how well various parts of the City are joined together, and how easy it is to move between different parts of the City. Connectivity is also related to how well, in a more global sense, land access is provided in the City.



The capacity of a roadway is affected by a number of factors, including the street's width, the number of crossing arterials and collectors, the amount of green time given to the street at each signal, the presence or absence of on-street parking, the number of turning lanes at each intersection and the number of driveways. Roadway capacities were defined for each street (see Table C-5).

Intersection capacity depends on the lane configuration, meaning the number of through lanes and left-turn lanes. Utilization of an intersection during the peak hours provides a measure of service level.

The level of service (LOS) designation of a roadway or an intersection indicates whether the capacity is adequate to handle the volume of traffic using the facility. LOS A indicates a good service level, with minimal stacking of vehicles, while LOS F describes densely congested conditions. A description of service level categories is provided in Exhibit C-4.

Existing capacities and levels of service for Palmdale's arterial streets and highways were calculated and are presented in the following sections dealing with specific roadway types.

With regard to connectivity or linkage within Palmdale's roadway system, the Element analyzed missing segments in the street pattern which disrupt traffic flow. A discussion of future needs in this area is also included in sections dealing with specific roadway types.

b. Development of the Traffic Model

The traffic consultants retained to analyze Palmdale's roadway system and develop a circulation plan utilized a computerized traffic model. The traffic model focuses on the Palmdale/Lancaster area, and extends from Avenue J to the north to Mt. Emma Road and Soledad Canyon Road to the south, and from 110th Street West to the west to 120th Street East to the east. For modeling purposes, this area was divided into 91 traffic analysis zones (TAZ's). Another 32 zones were identified where roadways cross the analysis area boundary to represent trips to/from locations outside the study area. Though the model includes a portion of Lancaster for purposes of developing the Circulation Element, only the City of Palmdale was studied.

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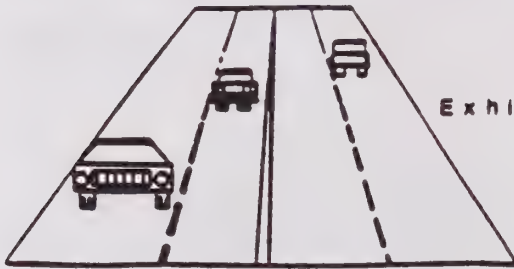
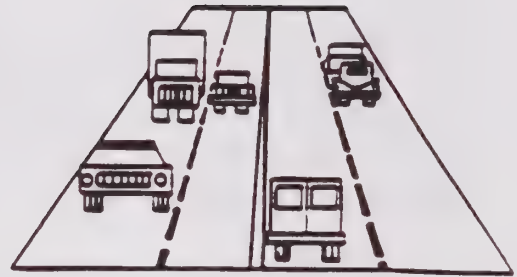
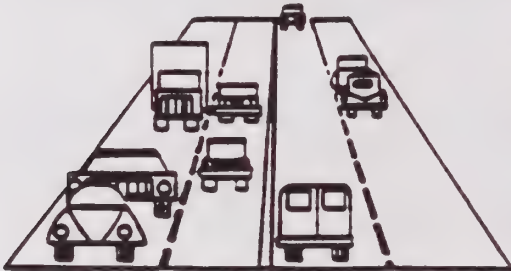


Exhibit C-4

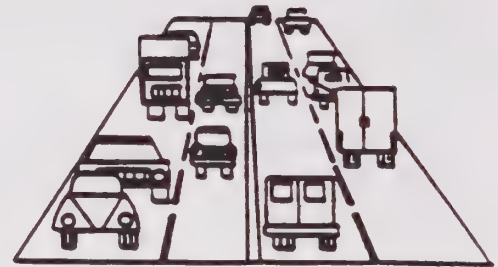
Level of Service A is the highest quality of service a particular class of highway can provide. It is a condition of free flow in which there is little or no restriction of speed or maneuverability caused by the presence of other vehicles. Operating speed is in the highest range and density is low.



Level of Service B is a zone of stable flow. However, operating speed is beginning to be restricted by other traffic. Under freeway conditions the density is low, restriction on maneuverability is negligible, and there is a little probability of major reduction in speed or flow rate. This level of service approximates typical design volumes for high type rural highways including freeways.



Level of Service C is still a zone of stable flow but at this volume and density level, most drivers are becoming restricted in their freedom to select speed, change lanes, or pass. Operating speeds are still in the range of 2/3 to 3/4 maximum. Density is from 30 to 35 vehicles per lane mile on freeways. This service level is generally selected as being an appropriate criterion for design purposes, particularly for urban freeways where the cost of providing the higher services levels during peak periods may be prohibitive.



Level of Service D approaches unstable flow. Tolerable average operating speeds are maintained but are subject to considerable sudden variation. Freedom to maneuver and driving comfort are low because lane density has increased to between 45 and 50 vpm, and the probability of accidents has increased. Most drivers would probably consider this service level unsatisfactory.



The upper limit of Level of Service E is the capacity of the facility. Operation in this zone is unstable, speeds and flow rates fluctuate, and there is little independence of speed selection or ability to maneuver. Since headways are short and operating speeds subject to rapid fluctuation, driving comfort is low and accident potential high. Although circumstances may make operation of facilities under these conditions necessary, it is clearly undesirable and should be avoided whenever feasible.



Level of Service F describes forced flow operations after density has exceeded optimum which is normally in the range of 70 to 75 vpm on free flowing facilities. Speed and rate of flow are below the levels attained in zone E and may, for short time periods, drop to zero.

Source: DKS Associates

Description of Typical Levels of Service for Roadways Palmdale General Plan

Adopted by City Council C-34
1/25/93

The traffic model utilized TRANPLAN software, which has also been utilized by the same consultant (DKS Associates) to model the City of Lancaster's General Plan network. TRANPLAN software is also used by Southern California Association of Governments (SCAG) and Caltrans for their subarea studies, ensuring that Palmdale's traffic model has regional as well as local applications.

Traffic analysis with a model of this type involves four steps: (1) specification of the roadway network; (2) development of vehicle trip generation rates for uses within each analysis zone; (3) distribution of these vehicle trips to destination points; and (4) assignment of vehicle trips to specific roadway segments. Based on this analysis, the model will indicate whether planned roadway widths will be adequate to handle projected traffic volumes, and where capacity problems will occur.

The first step in the process was to model the existing road system in Palmdale. This step was used to test the model's accuracy by its ability to replicate existing traffic conditions. The four components of this analysis were:

- **Roadway Network:** the model used Palmdale's existing road system, shown on Exhibit C-3.
- **Trip Generation:** the number of trips generated from existing land uses is summarized below in Table C-2.

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Table C-2

EXISTING LAND USE AND TRIP GENERATION

Land Use Category	Units	Land Use	Trip Rate	Generated
Single-Family Residential	Dwelling Units	21,323	10.06	214,509
Multiple-Family Residential	Dwelling Units	6,055	5.98	36,208
Mobile Home	Dwelling Units	1,971	4.81	9,481
Retail	Acres	529	275.16	145,560
Office	Acres	16	196.00	3,136
Industrial	Acres	897.6	51.80	46,496
Schools	Students	11,485	1.30	14,931
Public Facilities	Acres	3	558.00	1,674
Recreational	Acres	677	3.66	2,478
Special Generators	N/A	N/A	Varies	<u>7,860</u>
Total				482,333

Source: DKS Associates and Palmdale Planning Department 5-1-92

- Trip Distribution: Distribution of vehicle trips was calibrated based upon an analysis of existing traffic counts within the Planning Area. Trips were distributed both within and outside the study area.
- Trip Assignment: Trip assignments were refined based upon a detailed analysis of intersection capacity to produce estimates of traffic volumes on the roadway system.

After developing and calibrating the traffic model, the consultants performed several different runs of the model based upon various assumptions. The model was run to predict traffic volumes in year 2010 and at buildout of the land uses permitted by the Land Use Element. It was also run using the existing Circulation Plan network and a revised network.

The estimated number of trips generated from General Plan buildout is shown in Table C-3.

The model was also run assuming that various trip reduction (Transportation Demand Management, or TDM) measures were adopted throughout the City. TDM measures reduce the total number of vehicle trips at peak hours by promoting public transit, ride-sharing, flexible working schedules, telecommuting and similar methods.

Results of the various model runs are discussed in the following sections.

c. Identification of Issues

Based upon their analysis of existing conditions and the traffic model results, the consultants identified several traffic needs which have been addressed throughout this Circulation Element. Other issues were identified through the public input process, CAC meetings and Planning Commission hearings. The following issues were identified:

- (1) The need to upgrade and increase capacity on State Route 14, including interchange upgrades.
- (2) The need to realign and widen Highway 138 for additional capacity, improved level of service, and to serve the Regional Airport.
- (3) The need for increased arterial roadway capacity along north-south routes, especially east of State Route 14.
- (4) The need for grade separations over the railroad tracks.

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- (5) The need to connect and upgrade discontinuous streets and varying cross-sections on arterials.

TABLE C-3
BUILDOUT LAND USE AND TRIP GENERATION

Land Use Category	Units	Buildout Land Use	Trip Rate	Daily Buildout Generated
Single-Family Residential	Dwelling Units	99,193	10.06	997,882
Multiple-Family Residential	Dwelling Units	37,158	5.98	222,205
Mobile Home	Dwelling Units	2,854	4.81	13,728
Retail	Acres	2,629	275.16	723,396
Office	Acres	486	196.00	95,256
Industrial	Acres	10,814*	51.80	560,165
School	Students	28,200	1.30	36,600
Medical Office	Acres	20	446.92	8,938
Public Facilities	Acres	94	558.00	52,452
Business Park	Acres	5,174	140.00	724,360
Commercial Manufacturing	Acres	282	86.00	24,252
Recreational	Acres	626	3.66	2,292
Special Generator	N/A	N/A	Varies	<u>66,500</u>
Total				3,528,026

*Additional 6,167 acres of Industrial included within Special Generator category (Airfield and related industrial).

Source: DKS Associates and Palmdale Planning Department

- (6) The need to protect local neighborhoods from through traffic.

- (7) The need to develop and implement comprehensive Transportation Demand Management (TDM) and Transportation System Management (TSM) techniques to increase capacities on existing roadways.
- (8) The need to increase right-of-way widths to accommodate bikeways.
- (9) The need to coordinate circulation plans of individual development projects with each other and with the surrounding street network.
- (10) The need to define alignments for arterial roads within vacant, undeveloped areas which are ready for development.
- (11) The need to protect arterial street capacity from excessive cross traffic and turning movements.

d. Evaluating Alternative Improvement Plans

Once the traffic model was completed and run, it was necessary to make certain adjustments to the Land Use Plan and the road network plan to achieve acceptable Levels of Service at General Plan buildout. In addition, it was necessary in 1990 to expand the network and model to include two specific plan areas in the southwest portion of the Planning Area. In 1991, the model was re-run to reflect revised estimates of buildout, particularly in the Industry Trade Center and Airport Corridor Specific Plan areas, and to more accurately reflect existing build-out conditions. The latest traffic model run was completed in March, 1992, and shows acceptable levels of service throughout the Planning Area.

e. Refinement of the Circulation Plan

Based upon the latest traffic model run, the original network has been re-evaluated and several adjustments were made to recommended street widths. In some cases, ultimate right-of-way was reduced based on projected traffic volumes which were lower than expected. In other cases, additional right-of-way is recommended. The final result of this analysis is presented in Table C-4 which lists the buildout traffic volumes on the Future Roadway Network.

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TABLE C-4

LEVEL OF SERVICE ANALYSIS FUTURE VOLUMES ON MODIFIED GENERAL PLAN NETWORK WITH TDM MEASURES

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
NORTH-SOUTH ARTERIALS						
70 TH St West	Ave M/Ave M-8	4 LANES	36,000	17,000	0.47	A
	Ave M-8/Ave N	4 LANES	36,000	20,000	0.56	A
65 TH St West	Ave M/Ave N	4 LANES	36,000	1,000	0.03	A
60 TH St West	Ave M/Ave N	4 LANES	36,000	16,000	0.44	A
Godde Hill Rd.	60 TH St W/Elizabeth Lake Rd	4 LANES	36,000	23,000	0.64	B
55 TH St West	Ave M-8/Ave N	4 LANES	36,000	3,000	0.08	A
50 TH St West	Ave L/Ave M	4 LANES	36,000	16,000	0.44	A
	Ave M/Ave N	4 LANES	36,000	22,000	0.61	B
45 TH St West	Ave N/Ave N-8	4 LANES	36,000	14,000	0.39	A
Ranch Center Dr.	Elizabeth Lake Rd/Ritter Ranch Rd	4 LANES	36,000	6,000	0.17	A
30 TH St West	Ave M/Ave N	6 LANES	54,000	26,000	0.48	A
	Ave N/Ave P	6 LANES	54,000	18,000	0.33	A
	Ave P/Ave P-8	6 LANES	54,000	11,000	0.20	A
25 TH St West	Ave O/Ave P	4 LANES	36,000	7,000	0.19	A
	Ave P/Ave P-8	4 LANES	36,000	15,000	0.42	A
	Ave P-8/Elizabeth Lake Rd	6 LANES	54,000	26,000	0.48	A
20 TH St West	Ave M/Ave N	4 LANES	36,000	18,000	0.50	A
	Ave N/Ave P	4 LANES	36,000	17,000	0.47	A
	Ave P/Elizabeth Lake Rd	4 LANES	36,000	20,000	0.56	A
15 TH St West	Ave M/Ave N	4 LANES	36,000	21,000	0.58	A
	Ave N/Ave P	4 LANES	36,000	12,000	0.33	A
	Ave O-8/Ave P-8	4 LANES	36,000	9,000	0.25	A
10 TH St West	Ave M/Ave N	8 LANES	72,000	48,000	0.67	B
	Ave N/Ave P	8 LANES	72,000	55,000	0.76	C
	Ave P/Palmdale Blvd	8 LANES	72,000	45,000	0.63	B

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Circulation

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
Tierra Subida Ave	Palmdale Blvd/Ave R	6 LANES	54,000	24,000	0.44	A
	Ave R/Ave S	6 LANES	54,000	39,000	0.72	C
	Ave S/Barrel Springs Rd	4 LANES	24,000	11,000	0.46	A
5 th St West	Ave P-8/Palmdale Blvd.	6 LANES	54,000	54,000	0.48	A
	Palmdale Blvd/Tierra Subida Ave	4 LANES	36,000	22,000	0.61	B
Division St	Ave M/Ave O	6 LANES	54,000	42,000	0.78	C
	Ave O/Ave P	6 LANES	54,000	29,000	0.54	A
	Ave P/1500' N of Ave Q	6 LANES	54,000	36,000	0.67	B
	1500' N of Ave Q/Ave R	6 LANES	54,000	35,000	0.65	B
5 th St East	Ave R/Ave R-8	6 LANES	54,000	15,000	0.28	A
	Ave Q/Palmdale Blvd	4 LANES	36,000	5,000	0.14	A
	Palmdale Blvd/Ave R-8	4 LANES	36,000	7,000	0.19	A
	Ave R-8/Ave S	4 LANES	36,000	6,000	0.19	A
Sierra Highway	Ave M/Ave P	8 LANES	72,000	52,000	0.72	C
	Ave P/Ave Q	6 LANES	54,000	46,000	0.85	D*
	Ave Q/Palmdale Blvd	6 LANES	54,000	25,000	0.46	A
	Palmdale Blvd/Ave R-8	6 LANES	54,000	25,000	0.46	A
	Ave R-8/Ave S	6 LANES	54,000	24,000	0.44	A
	Ave S/1200' S of Ave S	6 LANES	54,000	24,000	0.44	A
	1200' S of Ave S/3000' N of Brl Sprngs Rd	6 LANES	54,000	24,000	0.44	A
	3000' N of Brl Sprngs Rd/Prblssm Hwy	6 LANES	54,000	24,000	0.44	A
10 th St East	Prblssm Hwy/Antelope Valley Fwy	8 LANES	72,000	64,000	0.89	D*
	Ave L/Ave M	6 LANES	54,000	31,000	0.57	A
	Ave O-8/Ave P	6 LANES	54,000	34,000	0.63	B
	Ave P/Palmdale Blvd	6 LANES	54,000	40,000	0.74	C
	Palmdale Blvd/Ave R-8	4 LANES	36,000	20,000	0.56	A
15 th St East	Ave R-8/Ave S	4 LANES	36,000	21,000	0.58	A
	Ave L/Ave L-8	4 LANES	36,000	10,000	0.28	A
	Ave L-8/Ave M	4 LANES	36,000	9,800	0.27	A
	Ave P/Palmdale Blvd	4 LANES	36,000	14,000	0.39	A
20 th St East	Palmdale Blvd/Ave R	4 LANES	36,000	9,000	0.25	A
	Ave L/Ave M	6 LANES	54,000	19,000	0.35	A
	Ave P/Palmdale Blvd	4 LANES	24,000	14,000	0.58	A
	Palmdale Blvd/Ave S	4 LANES	24,000	22,000	0.92	E*

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Circulation

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
25 th St East	Ave L/Ave M	4 LANES	36,000	4,000	0.11	A
	Ave P/Palmdale Blvd	6 LANES	54,000	31,000	0.57	A
	Palmdale Blvd/Ave R-8	6 LANES	54,000	29,000	0.54	A
	Ave R-8/Ave S	6 LANES	54,000	30,000	0.56	A
	Ave S/4200' S of Ave S	6 LANES	54,000	54,000	1.00	E*
	4200' S of Ave S/Barrel Springs Rd	6 LANES	54,000	30,000	0.56	A
30 th St East	Ave L/Ave M	6 LANES	54,000	16,000	0.13	A
	Ave P/Ave Q	6 LANES	54,000	23,000	0.43	A
	Ave Q/Palmdale Blvd	6 LANES	54,000	30,000	0.56	A
	Palmdale Blvd/Ave R	6 LANES	54,000	25,000	0.46	A
	Ave R/Ave S	6 LANES	54,000	28,000	0.52	A
35 th St East	Ave L/Ave M	4 LANES	36,000	5,000	0.14	A
	Ave P/Ave Q	4 LANES	36,000	6,000	0.17	A
	Ave Q/Palmdale Blvd	4 LANES	36,000	23,000	0.64	B
	Palmdale Blvd/Ave R	4 LANES	36,000	23,000	0.64	B
	Ave R/Ave S	4 LANES	36,000	9,000	0.25	A
	Ave S/1600' S of Ave S	4 LANES	36,000	10,000	0.28	A
40 th St East	Ave L/Ave M	4 LANES	36,000	15,000	0.42	A
	Ave N/Ave P	4 LANES	36,000	17,000	0.47	A
	Ave P/Palmdale Blvd	6 LANES	54,000	32,000	0.59	A
	Palmdale Blvd/Ave S	6 LANES	54,000	29,000	0.54	A
	Ave S/Pearblossom Hwy	6 LANES	54,000	36,000	0.67	B
	Pearblossom Hwy/Barrel Springs Rd	4 LANES	36,000	17,000	0.47	C
45 th St East	Ave L/Ave M	4 LANES	36,000	4,000	0.11	A
47 th St East	Palmdale Blvd/Ave S	8 LANES	72,000	50,000	0.69	B
	Ave S/Fort Tejon Rd	8 LANES	72,000	35,000	0.49	A
	Ave S-8/Pearblossom Hwy (General Plan	6 LANES	36,000	22,000	0.41	A
	Amendment 97-1, adopted by City Council	4 LANES	36,000	2,000	0.05	A
Fort Tejon Rd	April 10, 1997)	8 LANES	72,000	13,000	0.18	A
50 th St East	Pearblossom Hwy/Barrel Springs Rd	8 LANES	136,000	58,000	0.43	A
	47 th St E/Pearblossom Hwy	8 LANES	136,000	68,000	0.50	A
	Ave L/Ave M	8 LANES	136,000	54,000	0.40	A
	Ave M/Ave P	8 LANES	80,000	61,000	0.76	C
55 th St East	Ave P/Crosstown Fwy	4 LANES	36,000	12,000	0.33	A
60 th St East	Crosstown Fwy/Palmdale Blvd	6 LANES	54,000	13,000	0.25	A
	Ave Q/Ave S	6 LANES	54,000	43,000	0.80	C
	Ave L/Ave N	6 LANES	54,000	23,000	0.43	A
	Ave Q/Ave R					
	Ave R/Ave S					

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Circulation

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
62 nd St East	Ave S/Ave T	6 LANES	54,000	16,000	0.30	A
	Ave T/Mt Emma Rd	4 LANES	36,000	4,000	0.11	A
70 th St East	Ave L/Ave N	4 LANES	36,000	11,000	0.31	A
	Ave P-8/Ave R	4 LANES	36,000	15,000	0.42	A
	Ave R/Ave S-8	4 LANES	36,000	20,000	0.56	A
80 th St East	Ave L/Ave N	4 LANES	36,000	12,000	0.33	A
90 th St East	Ave L/Ave N	6 LANES	54,000	31,000	0.57	A
	Ave N/Palmdale Blvd	6 LANES	54,000	42,000	0.78	C
	Palmdale Blvd/Ave S	6 LANES	54,000	31,000	0.57	A
	Ave S/Ave T	4 LANES	36,000	16,000	0.44	A
110 th St East	Ave T/S.R. 138	4 LANES	36,000	5,000	0.14	A
	S.R. 138/Fort Tejon Rd	4 LANES	36,000	1,000	0.03	A
	Ave L/Ave N	4 LANES	36,000	7,000	0.19	A
	Ave N/Ave P	4 LANES	36,000	14,000	0.39	A
	Ave P/Ave S	4 LANES	36,000	13,000	0.36	A
	Ave S/S.R. 138	4 LANES	36,000	3,000	0.08	A
	S.R. 138/Fort Tejon Rd	4 LANES	36,000	2,000	0.06	A
	Ave L/Ave N	FREEWAY	200,000	132,000	0.66	B
STATE ROUTE 14	Ave N/Ave P	FREEWAY	200,000	146,000	0.73	C
	Ave P/Palmdale Blvd	FREEWAY	200,000	153,000	0.77	C
	Palmdale Blvd/Ave S	FREEWAY	160,000	88,000	0.55	A
	Ave S/Angeles Forest Hwy	FREEWAY	160,000	82,000	0.51	A
	South of Angeles Forest Hwy	FREEWAY	160,000	113,000	0.71	C
Bypass Fwy	Ave L/Ave M	FREEWAY	120,000	65,000	0.54	A
	Ave M/Ave O	FREEWAY	120,000	71,000	0.59	A
	Ave O/Palmdale Blvd	FREEWAY	120,000	38,000	0.32	A
Crosstown Fwy	Antelope Valley Fwy/10 th St E	FREEWAY	120,000	70,000	0.58	A
	10 th St E/25 th St E	FREEWAY	120,000	71,000	0.59	A
	25 th St E/40 th St E	FREEWAY	120,000	68,000	0.57	A
	40 th St E/50 th St E	FREEWAY	120,000	74,000	0.62	B
Airport Expressway	50 th St E/Bypass Fwy	FREEWAY	120,000	38,000	0.32	A
	Crosstown Fwy/70 th St E	EXPRESSWAY	120,000	47,000	0.39	A
	70 th St E/Bypass Fwy	EXPRESSWAY	120,000	39,000	0.33	A

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Circulation

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
EAST WEST		ARTERIALS				
Avenue L	10 th St E/20 th St E	8 LANES	80,000	55,000	0.69	B
	20 th St E/40 th St E	8 LANES	80,000	52,000	0.65	B
	40 th St E/50 th St E	8 LANES	80,000	45,000	0.56	A
	50 th St E/90 th St E	8 LANES	80,000	27,000	0.34	A
	90 th St E/110 th St E	8 LANES	72,000	31,000	0.43	A
Avenue L-8	10 th St E/20 th St E	4 LANES	36,000	16,000	0.44	B
	20 th St E/50 th St E	4 LANES	36,000	11,000	0.31	A
Avenue M	90 th St W/75 th St W	4 LANES	36,000	6,200	0.17	A
	75 th St W/60 th St W	6 LANES	54,000	13,000	0.24	A
	60 th St W/30 th St W	6 LANES	54,000	38,000	0.70	B
	30 th St W/15 th St W	8 LANES	72,000	51,000	0.71	C
	15 th St W/Antelope Valley Freeway	8 LANES	72,000	57,000	0.79	C
Avenue M-8	Antelope Valley Freeway/Division St	8 LANES	72,000	61,000	0.85	D*
	Division St/Sierra Highway	8 LANES	72,000	51,000	0.71	C
	Sierra Hwy/5 th St E	8 LANES	72,000	83,000	1.15	F*
	5 th St East/10 th St E	8 LANES	72,000	54,000	0.75	C
	10 th St E/15 th St E	8 LANES	72,000	55,000	0.76	C
	15 th St E/50 th St E	8 LANES	72,000	49,000	0.68	B
	50 th St E/90 th St E	6 LANES	54,000	20,000	0.37	A
	90 th St E/110 th St E	6 LANES	54,000	10,000	0.19	A
	70 th St W/55 th St W	4 LANES	36,000	14,000	0.39	A
	55 th St W/45 th St W	4 LANES	36,000	7,500	0.21	A
	45 th St W/30 th	4 LANES	36,000	7,000	0.19	A
	10 th St W/Sierra Hwy	4 LANES	36,000	14,000	0.39	A
Avenue N	70 th St W/60 th St W	4 LANES	36,000	21,000	0.58	A
	60 th St W/25 th St W	6 LANES	54,000	40,000	0.74	C
	25 th St W/Antelope Valley Freeway	6 LANES	54,000	40,000	0.74	C
	Antelope Valley Freeway/10 th St W	6 LANES	54,000	38,000	0.70	B
	10 th St W/Sierra Hwy	6 LANES	54,000	20,000	0.37	A
Avenue O	2000' W of 40 th St E/90 th St E	6 LANES	54,000	23,000	0.43	A
	90 th St E/120 th St E	6 LANES	54,000	13,000	0.24	A
	Rancho Vista Blvd/30 th St W	6 LANES	54,000	21,200	0.39	A
	30 th St W/10 th St W	6 LANES	54,000	35,000	0.65	B
	10 th St W/Sierra Hwy	6 LANES	54,000	25,000	0.46	A
Avenue O-8	90 th St E/120 th St E	6 LANES	54,000	17,000	0.31	A
	Rancho Vista Blvd/10 th St W	4 LANES	36,000	14,000	0.39	A
Lockheed Way	Sierra Hwy/8 th St E	4 LANES	36,000	7,500	0.21	A
	8 th St E/10 th St E	4 LANES	36,000	7,500	0.21	A
	10 th St E/15 th St E	6 LANES	54,000	21,000	0.39	A
Rancho Vista Blvd	50 th St W/Twoncenter Dr	6 LANES	54,000	32,000	0.59	A

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Circulation

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
Avenue P	30 th St W/15 th St W	6 LANES	54,000	39,000	0.72	C
	15 th St W/10 th St W	6 LANES	54,000	44,000	0.81	D*
	10 th St W/Sierra Hwy	6 LANES	54,000	50,000	0.93	E*
	Sierra Hwy/8 th St E	6 LANES	54,000	36,000	0.67	B
	8 th St E/20 th St E	6 LANES	54,000	39,000	0.72	C
	20 th St E/30 th St E	6 LANES	54,000	37,000	0.69	B
	30 th St E/50 th St E	6 LANES	54,000	29,000	0.54	A
	90 th St E/110 th St E	6 LANES	54,000	33,000	0.61	B
Avenue P-8	30 th St W/25 th St W	4 LANES	36,000	12,000	0.33	A
	10 th St W/SR 14	4 LANES	36,000	20,000	0.56	A
	Sr 14/3 rd St E	4 LANES	36,000	17,000	0.47	A
	3 rd St E/Sierra Hwy	4 LANES	36,000	17,000	0.47	A
	Sierra Hwy/10 th St E	4 LANES	36,000	13,000	0.36	A
	10 th St E/40 th St E	4 LANES	36,000	18,000	0.50	A
	40 th St E/50 th St E	4 LANES	36,000	5,000	0.14	A
	50 th St E/90 th St E	4 LANES	36,000	10,000	0.28	A
Avenue Q	Palmdale Blvd/Division St	6 LANES	54,000	39,000	0.72	C
	Division St/6 th St E	6 LANES	54,000	36,000	0.67	B
	6 th St E/Sierra hwy	6 LANES	54,000	38,000	0.70	B
	Sierra Hwy/20 th St E	6 LANES	54,000	38,000	0.70	B
	20 th St E/40 th St E	6 LANES	54,000	40,000	0.74	C
	40 th St E/60 th St E	6 LANES	54,000	42,000	0.78	C
Santa Fe Hills Dr Elizabeth lake Rd	Elizabeth Lake Rd/25 th St W	4 LANES	36,000	15,000	0.42	A
	Godde Hill Rd/Bridge Rd	4 LANES	36,000	18,000	0.50	A
	Bridge Rd/25 th St W	6 LANES	54,000	53,000	0.98	E*
	25 th St W/Foxholm Dr	8 LANES	72,000	50,000	0.69	B
	Foxholm Dr/Palmdale Blvd	8 LANES	72,000	55,000	0.76	C
Palmdale Blvd	Elizabeth Lake Rd/Antelope Valley Fwy	8 LANES	72,000	49,000	0.68	B
	Antelope Valley Fwy/Division St	8 LANES	72,000	59,000	0.82	D*
	Division St/30 th St E	6 LANES	54,000	48,000	0.89	D*
	30 th St E/47 th St E	6 LANES	54,000	36,000	0.67	B
	47 th St E/70 th St E	6 LANES	54,000	30,000	0.56	A
	70 th St E/90 th St E	6 LANES	54,000	20,000	0.37	A
	90 th St E/120 th St E	6 LANES	54,000	26,000	0.48	A
	Ritter Ranch Rd/Ranch Center Dr	2 LANES	18,000	7,000	0.39	A
City Ranch Rd	Ranch Center Dr/Bridge Rd	4 LANES	36,000	25,000	0.69	B
	Bridge Rd/Tierra Subida Ave	4 LANES	36,000	11,000	0.31	A

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Circulation

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
Avenue R	Tierra Subida Ave/Division St	6 LANES	54,000	40,000	0.74	C
	Division St/6 th St E	6 LANES	54,000	39,000	0.72	C
	6 th St E/25 th St E	6 LANES	54,000	38,000	0.70	B
	25 th St E/30 th St E	6 LANES	54,000	33,000	0.61	B
	30 th St E/47 th St E	6 LANES	54,000	38,000	0.70	B
	47 th St E/60 th St E	6 LANES	54,000	34,000	0.63	B
	60 th St E/70 th St E	6 LANES	54,000	8,000	0.15	A
	70 th St E/90 th St E	6 LANES	54,000	18,000	0.33	A
Avenue R-8	Division St/5 th St E (General Plan Amendment 97-1, adopted by City Council April 10, 1997)	4 LANES	36,000	26,000	0.72	C
		4 LANES	36,000	26,000	0.72	C
		4 LANES	36,000	27,000	0.75	C
	Sierra Hwy/10 th St E	4 LANES	36,000	23,000	0.64	B
	10 th St E/25 th St E	4 LANES	36,000	29,000	0.81	D*
	25 th St E/1200' W of 30 th St E	4 LANES	36,000	26,000	0.72	C
	1200' W of 30 th St E/1200' E of 35 th St E	4 LANES	36,000	23,000	0.64	B
	1200' E of 35 th St E/40 th St E	4 LANES	36,000	34,000	0.94	E*
Ritter Ranch Rd	40 th St E/1800' E of 47 th St E	4 LANES	36,000	14,000	0.39	A
	1800' E of 47 th St E/67 th St E	4 LANES	36,000	14,000	0.39	A
	Elizabeth Lake Rd/City Ranch Rd	6 LANES	54,000	25,000	0.46	A
Avenue S	City Ranch Rd/Ranch Center Dr	6 LANES	54,000	43,000	0.80	C
	Ranch Center Dr/Bridge Rd	6 LANES	54,000	30,000	0.56	A
	Bridge Rd/Tierra Subida Ave	8 LANES	72,000	32,000	0.44	A
	Tierra Subida Ave/Antelope Valley Fwy	8 LANES	72,000	49,000	0.68	B
	Antelope Valley Fwy/Sierra Hwy	8 LANES	72,000	41,000	0.57	A
	Sierra Hwy/10 th St E	8 LANES	72,000	31,000	0.43	A
	10 th St E/20 th St E	8 LANES	72,000	46,000	0.64	B
	20 th St E/25 th St E	8 LANES	72,000	36,000	0.50	A
	25 th St E/35 th St E	8 LANES	72,000	23,000	0.32	A
	35 th St E/47 th St E	8 LANES	72,000	23,000	0.32	A
	47 th St E/3800' E of 47 th St E	6 LANES	54,000	22,000	0.41	A
	3800' E of 47 th St E/60 th St E	6 LANES	54,000	16,000	0.30	A
Avenue S-8	60 th St E/70 th St E	6 LANES	54,000	18,000	0.33	A
	70 th St E/90 th St E	6 LANES	54,000	30,000	0.56	A
	90 th St E/110 th St E	4 LANES	36,000	6,700	0.19	A
Pearblossom Hwy	40 th St E/47 th St E	8 LANES	80,000	52,000	0.65	B
		8 LANES	80,000	54,000	0.68	B
	Sierra Hwy/Barrel Springs Rd	8 LANES	80,000	48,000	0.60	A
Avenue T	Barrel Springs Rd/40 th St E	8 LANES	80,000	48,000	0.60	A
	40 th St E/47 th St E	8 LANES	80,000	33,000	0.41	A
	47 th St E/Ave T	6 LANES	54,000	34,000	0.63	B
	Pearblossom Hwy/90 th St E	6 LANES	54,000	16,000	0.30	A
	90 th St E/120 th St E	6 LANES	54,000	16,000	0.30	A

(General Plan Amendment 93-2 adopted by City Council October 13, 1993)

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Circulation

Roadway	From/To	Striping* Geometrics	Capacity	Volume	V/C	LOS
Barrel Springs Rd	Tierra Subida Ave/Sierra Hwy	6 LANES	36,000	12,000	0.33	A
	Sierra Hwy/West of 25 th St E	6 LANES	36,000	19,000	0.53	A
	West of 25 th St E/25 th St E	6 LANES	36,000	19,000	0.53	A
	25 th St E/Pearblossom Hwy	6 LANES	36,000	33,000	0.92	E*
	Pearblossom Hwy/40 th St E	6 LANES	36,000	20,000	0.56	A
	40 th St E/Cheseboro Rd	6 LANES	36,000	4,000	0.11	A
Old Harold Rd	25 th St E/Barrel Springs Rd	4 LANES	36,000	12,000	0.33	A
S.R. 138	Ave T/90 th St E	6 LANES	60,000	12,000	0.20	A
	90 th St E/120 th St E	6 LANES	60,000	1,000	0.02	A

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Circulation

The following sections describe how the circulation analysis relates to specific street types, from highways to local streets.

2. Highways and Regional Arterials

a. Existing Roadways

Palmdale is about 35 miles north of Los Angeles on a straight heading, and about 60 miles north of Los Angeles via the Antelope Valley Freeway (SR-14). SR-14 runs north into Kern County and south to the San Fernando Valley to provide the Palmdale community with regional and inter-regional connectivity via an interchange with the Golden State Freeway (I-5). I-5 runs north into central and northern California, as well as south into Orange and San Diego Counties.

The Antelope Valley Freeway (State Route 14) is a north/south freeway which provides regional access for the entire Antelope Valley to the rest of Los Angeles County. Further south, the Antelope Valley Freeway becomes an east/west route providing access to the Santa Clarita Valley. It has four travel lanes south of Avenue P-8 and six travel lanes north of Avenue P-8. The current traffic volumes on the Antelope Valley Freeway range between 40,000 and 43,000 average daily trips (ADT).

Several arterials in the City of Palmdale serve a regional function as well as local needs. Palmdale Boulevard connects Palmdale with Victorville to the east in San Bernardino County. Elizabeth Lake Road, which is the westerly extension of Palmdale Boulevard, connects with Avenue D, which in turn, connects to Interstate 5, near the Ventura County border. Pearblossom Highway (SR-138) branches near the San Bernardino County border into Palmdale Road, which connects to I-15 near Victorville, and SR-138, which connects to I-15 near San Bernardino. Sierra Highway links Palmdale with the City of Mojave to the north in Kern County and with the I-5/SR-14 interchange to the south near Sylmar. These roads are further described below:

Palmdale Boulevard/Elizabeth Lake Road has a total of two through lanes west of Foxholm Drive near the City limit, four lanes between Foxholm Drive and 47th Street East, and two lanes east of 47th Street East. In addition, Palmdale Boulevard has a full (partial cloverleaf) interchange configuration with the Antelope Valley Freeway and a raised, landscaped median island between 10th Street West and 11th Street East. Caltrans has recently removed the serrated median island between 11th and 22nd Streets East and is currently replacing it with a flash median.

Pearblossom Highway (SR-138) extends from the San Bernardino County border to Sierra Highway, where it branches into SR-14 and Antelope Highway (SR-138). Within the City of Palmdale, it has four through lanes west of Old Nadeau Road, and two lanes to the east. Old Nadeau Road is located about 600 feet north of Sierra Highway.

Sierra Highway extends from the City of Mojave, in Kern County, through Palmdale to the I-5/SR-14 interchange to the south. Within the City, it has four through lanes north of Avenue R-8, two lanes between Avenue R-8 and 1,200 feet south of Avenue S, four lanes between 1200 feet south of Avenue S and 3,000 feet north of Barrel Springs Road, and two lanes to the south. Sierra Highway generally runs adjacent to SR-14 and turns into an east/west arterial a few miles south of the Planning Area.

b. Existing Levels of Service

With few exceptions, the City of Palmdale arterial network currently operates at acceptable levels of service. A few arterial segments are currently operating near or above their striped capacity at LOS D, E, or F. These congested segments are located on major arterial sections that have yet to be built to the full major arterial cross-section.

Palmdale Boulevard, between the Antelope Valley Freeway and 30th Street East, currently operates at LOS E, indicating significant levels of congestion for motorists. This section of Palmdale Boulevard has four through lanes with a paved median island on an 84-foot cross-section. By eliminating on-street parking, this section can be restriped to six through lanes and a median, which would accommodate the traffic. This would improve the operating level to LOS C.

Pearblossom Highway, between Barrel Springs and 30th Street East, currently operates at LOS F. This segment is currently striped for two through lanes and has yet to be built to the full major arterial cross-section.

The intersection of Pearblossom Highway and Avenue T operates at LOS D ($V/C = 0.84$) during the a.m. peak hour, and the intersection of Palmdale Boulevard and 30th Street East operates at LOS D ($V/C = 0.87$) during the p.m. peak hour. Continued monitoring of future growth along these intersections will facilitate implementation of appropriate mitigation strategies at specific times. The Traffic Impact Fee Assessment and Master Traffic Level Maintenance Plan identifies various links as candidate locations for this funding strategy.

Circulation

S.R. 138 is currently operating at LOS E. This facility is striped for total of two through lanes and has yet to be built to the full major arterial cross-section.

Sierra Highway, between Avenue M and Avenue P, which is currently striped for four through lanes is operating at LOS E.

Sierra Highway, between Pearblossom Highway and the Antelope Valley Freeway, currently operates at LOS F. This segment is striped for four through lanes.

c. Future Regional Arterial and Highway Needs

When running the traffic model, the consultant calculated that highways and regional arterials could carry 10,000 vehicles per lane per day. This figure assumed that traffic improvements, including signal coordination and progression, would occur concurrently with development and that full roadway improvements would be in place at General Plan build-out. SR-14 was assumed to have four lanes in each direction through the study area. In addition, several existing major arterials were recommended to be upgraded to Regional Arterial status, including the following road segments:

East-West Arterials

- Avenue L west of 10th Street East;
- Avenue M between 30th Street West and 50th Street East;
- Elizabeth Lake Road between 25th Street West and Palmdale Boulevard;
- Palmdale Boulevard between Elizabeth Lake Road and Division Street;
- Avenue S between 35th Street East and 3800' east of 47th Street East; and,
- Pearblossom Highway between Sierra Highway and Avenue T.

North-South Arterials

- 10th Street West between Avenue M and Palmdale Boulevard;
- Sierra Highway between Avenue M and Avenue P;
- Sierra Highway between Pearblossom Highway and SR-14;
- 47th Street East between Palmdale Boulevard and Ft. Tejon Road;
Ft. Tejon Road between 47th Street East and Pearblossom Highway; and,
50th Street East between the Cross Town Freeway and Palmdale Boulevard.

In addition to these upgrades, other recommended regional improvements included the following:

- Upgrading of 50th Street East to an expressway designation north of Avenue P-8. An expressway has more capacity than either an arterial or a regional arterial, approaching that of a freeway. This is achieved by providing grade-separated intersections, preferential signal timing, and very limited access (one-mile or half-mile spacing).
- A new east/west freeway along the alignment of Avenue P-8, having three lanes in each direction from SR-14 to just east of 90th Street East. For purposes of this study, interchanges were assumed at SR-14, 10th Street East, 25th Street East, 40th Street East, and at the new six-lane north/south freeway. Future studies of this facility should consider additional interchange locations.
- A new north/south freeway having three lanes in each direction from SR-138 on the south to the City of Lancaster to the north. For purposes of this study, interchanges were assumed at the new six-lane east/west freeway, Palmdale Boulevard, Avenue S, and SR-138. Future studies of this facility should consider additional interchange locations.
- Expansion of SR-14 from four lanes each way to five lanes each way between Avenue L and Crown Valley Parkway.

The proposed east/west freeway is projected to carry about 75,000 vehicles per day between SR-14 and 50th Street East and about 40,000 vehicles per day further east. The proposed north-south freeway is projected to carry approximately 50,000 vehicles per day.

Along with additional freeways and designation upgrades, the consultants recommended trip reduction measures to reduce total vehicle trips throughout the Planning Area by 15 percent. However, even with these measures some regional arterial locations within the City will be operating at LOS D or worse at the year of land use buildout. These locations include: Sierra Highway, between Pearblossom Highway and the Antelope Valley Freeway; Avenue M, between the Antelope Valley Freeway and Division; and Palmdale Boulevard between the Antelope Valley Freeway and Division.

Circulation

Based on the traffic model analysis, the regional roadway improvements mentioned above will be necessary to ensure acceptable levels of service within the Planning Area as buildout occurs.

3. Arterials

a. Existing Roadways

Major Arterials

Major arterials as previously designated on the City's General Plan Circulation Map are spaced at approximately one-mile intervals, and represent the major carrying capacity for traffic to and within the City. The City's current policy is to create major arterials at one-mile intervals and secondary arterials at one-half mile intervals between the majors. Previous design standards for a major arterial called for a paved section of 84 feet within a 100-foot right-of-way which, when built to its full carrying capacity, provides for either three lanes of through traffic in each direction and a median for left-turning traffic, or two lanes in each direction, a left-turn median, and a curb lane for parking. In some portions of the City, the median is paved to create specific left- and U-turn bays; in other locations, painted medians with optional/dual left-turn lanes are used.

Some of the major arterials within Palmdale are discontinuous, and many have yet to be built to the full 84-foot paved cross-section along the entire length. A detailed discussion of each major arterial follows.

Avenue L is discontinuous along its length, which extends from west of 70th Street West to the City limit at 120th Street East. It is classified as a major arterial west of 40th Street East, and as a minor to the east. It has a total of two through lanes over its length.

Avenue M extends from 90th Street West to east of the City limit at 120th Street East, and has a total of two through lanes over its entire length.

Avenue N, a two-lane arterial, is discontinuous along its length. It reaches from 70th Street West to Sierra Highway, and from about 2,000 feet west of 40th Street East to east of 110th Street East.

Avenue R extends from Tierra Subida Avenue to 3,000 feet east of 47th Street East. It has two through lanes west of 6th Street East, four lanes between 6th Street East and 20th Street East, two lanes eastbound and one lane westbound between 20th Street East and 22nd Street East, four lanes between 22nd Street East and 30th Street East,

and two lanes east of 30th Street East. The arterial crosses under the Antelope Valley Freeway but does not have an interchange.

Avenue S extends from 20th Street West to about 3,800 feet east of 47th Street East. It has two lanes over its entire length except for the following segments which have two lanes eastbound and one lane westbound: between Sierra Highway and 15th Street East, and between 25th Street East and 35th Street East. The arterial has a full-diamond interchange with the Antelope Valley Freeway, providing regional connections to the north and south.

Avenue O has two segments: one extends from 30th Street West to 10th Street West, and the other extends from 27th Street East to east of the City limit at 120th Street East. Avenue O has a total of two through lanes.

Avenue P extends from 30th Street West to 50th Street East. It has four through lanes over much of its length west of 30th Street East, except for the segment between 10th Street West and 15th Street West, which has six lanes.

Avenue Q is discontinuous along its length. It reaches from Palmdale Boulevard to 6th Street East where it is classified as a secondary arterial, and from Sierra Highway to 40th Street East where it is classified as a major arterial. This arterial has one through lane in each direction along its entire length, though between 30th and 35th Street East, the south side is currently paved wide enough for two lanes.

Avenue T extends from Pearblossom Highway to east of 90th Street East and has two through lanes along its length.

90th Street West extends north of Avenue L and has two through lanes along its length.

70th Street West reaches from north of Avenue K to Avenue N and has two through lanes along its length. It is classified as a secondary arterial over most of this length, except for the segment between Avenue L and M-8, which is classified as a major arterial.

60th Street West extends from north of Avenue K, outside the City limit, to the California Aqueduct where it becomes Godde Hill Road. It has a total of two through lanes.

Circulation

Godde Hill Road is an extension of 60th Street West south of Avenue M to Elizabeth Lake Road. It has two through lanes along its length.

50th Street West reaches from north of Avenue K to south of Avenue N, where it becomes Quartz Hill Cutoff.

40th Street West, a two lane arterial, extends from north of Avenue K in Lancaster, south to Avenue M.

30th Street West extends from north of Avenue K to Avenue P and has two through lanes.

20th Street West, a two-lane arterial, reaches from north of Avenue K to Avenue P.

25th Street East reaches from Avenue P to Barrel Springs Road. It has two through lanes over most of its length, except for the segment between Avenue S and 4,200 feet to the south, which has four through lanes. 25th Street East is classified as a major arterial north of Avenue S, and as a secondary arterial to the south.

30th Street East is discontinuous with two segments. It extends from north of Avenue K in Lancaster to Avenue M where it has two through lanes, and from Avenue P to 1,600 feet south of Avenue S. The number of through lanes oscillates between two and four along the segment between Avenue P and 1,600 feet south of Avenue S.

10th Street East is discontinuous along its length. It extends from north of Avenue K in Lancaster to Avenue M, and from Avenue O-8 to Avenue S. It has two through lanes along both segments.

20th Street East is also discontinuous, with two segments. It extends from north of Avenue K to Avenue M where it is classified as a major arterial, and from Avenue O-8 to Avenue S where it is classified as a secondary arterial. It has two through lanes along both segments.

10th Street West/Tierra Subida Avenue is a major north/south arterial serving the area. It extends from north of Avenue G in Lancaster and south to Barrel Springs Road. It has a freeway interchange near Avenue P and is classified as a major arterial north of Avenue S, and as a secondary arterial to the south. It has two lanes over its entire length except for one-half mile south of Palmdale Boulevard where it has two lanes southbound and one lane northbound. It changes its name from 10th Street West, north of Palmdale Boulevard, to Tierra Subida Avenue, south of Palmdale Boulevard.

Division Street, a two-lane arterial, reaches from 1,500 feet north of Avenue Q to Avenue R-8.

40th Street East extends from Avenue O to Barrel Springs Road. This arterial is classified as a major arterial north of Pearblossom Highway, and as a secondary arterial to the south and has two through lanes.

50th Street East extends from north of Avenue K to Palmdale Boulevard, where it becomes 47th Street East.

47th Street East. South of Palmdale Boulevard, 47th Street East continues on to south of Barrel Springs Road. This arterial (47th/50th Street East) has two through lanes over most of its length, except for the segment between Palmdale Boulevard and Fort Tejon Road which has four lanes and a two-way, left turn median. 47th Street East is classified as a major arterial north of SR-138 and as a secondary arterial to the south.

Fort Tejon Road reaches from 47th Street East to SR-138, and has four through lanes with a continuous two-way left-turn median.

70th Street East extends from north of Avenue K to Palmdale Boulevard, and has two through lanes along its entire length. It is classified as a major arterial south of Avenue L, and as a secondary arterial to the north.

90th Street East extends from north of Avenue K to south of Avenue T, where it becomes 87th Street East. It has two through lanes along its entire length.

Secondary Arterials

Under the previous General Plan, secondary arterials were designated so as to be spaced at approximately one-half mile intervals between the major arterials, and provide access to the major arterials. Previously, design standards for a secondary arterial called for a paved section of 64 feet within a 80-foot right-of-way width. When built to its full carrying capacity, this cross-section provides for either two lanes in each direction with a painted median left-turn lane, or one lane in each direction with a painted median left-turn lane and curb parking. Typically, secondary arterials do not have a raised median.

Circulation

Some of the secondary arterials within Palmdale are discontinuous, and have yet to be built to the full 64-foot paved cross-section along their entire length. A detailed discussion of each secondary arterial follows.

Avenue L was previously discussed in Major Arterials section.

Avenue L-8 extends from 65th Street West to 20th Street West in the City of Lancaster and has a total of two through lanes.

Avenue M-8, a two-lane arterial, extends from 70th Street West to 45th Street West.

Avenue N-8 extends from 70th Street East to 80th Street East.

Avenue O-8 is discontinuous and extends from 20th Street West to 10th Street West, and from Lockheed Way to Sierra Highway to 15th Street East. It has two through lanes along both segments.

Avenue P-8 has three discontinuous segments between 10th Street West and 50th Street East. All segments are striped for two through lanes except for the segment between 10th Street West and Sierra Highway which is striped for four lanes. This facility parallels the alignment of the proposed freeway extension to the Palmdale Regional Airport.

Avenue Q was previously discussed in Major Arterials section.

Avenue R-8 has four discontinuous segments between 12th Street East and 1,800 feet east of 47th Street East. All segments are striped for two through lanes, though many of them are paved wide enough for four.

Barrel Springs Road, a two-lane arterial, has two unconnected segments: from Tierra Subida Avenue to Sierra Highway and from east of Pearblossom Highway to Cheseboro Road.

Bouquet Canyon Road is a two-lane road which extends south from Elizabeth Lake Road along the alignment of 80th Street West and southwesterly into the Santa Clarita Valley. It winds through canyons and provides a regional connection with the western portion of the Planning Area.

80th Street West extends north of Avenue L and has two through lanes along its length.

55th Street West, a two-lane arterial, extends from Avenue L, north of the City limit, to Avenue N.

45th Street West has two unconnected segments: from north of Avenue K to Avenue L-14 and from Avenue M to Avenue N. Both segments are striped for two through lanes.

25th Street West has two discontinuous segments: from north of Avenue K to Avenue L in Lancaster, and from Avenue P to Elizabeth Lake Road. Both segments have two through lanes.

15th Street West, a two-lane arterial, extends from Avenue N to Avenue O-8.

Tierra Subida Avenue was previously discussed in the Major Arterials section.

5th Street East extends from Avenue Q to Avenue S, and has a total of two through lanes.

6th Street East extends west of Palmdale Boulevard.

15th Street East reaches between Avenue O-8 and Avenue R, and has two through lanes.

20th Street East was previously discussed in the Major Arterials section.

25th Street East was previously discussed in the Major Arterials section.

35th Street East has three discontinuous segments between Avenue Q and 1,600 feet south of Avenue S. All segments are striped for two through lanes though some of them are paved wide enough for four.

40th Street East was previously discussed in the Major Arterials section.

47th Street East was previously discussed in the Major Arterials section.

70th Street East was previously discussed in the Major Arterials section.

110th Street East extends from Avenue K to Avenue S, and has a total of two through lanes along its entire length.

Circulation

b. Arterial Levels of Service

Capacity

Existing service levels on major and secondary arterials were analyzed and determined to be generally good. (See Table C-5 and Exhibit C-5.)

However, Palmdale Boulevard between SR-14 and 30th Street East was found to be operating at LOS D during peak hours. It should be noted, in reviewing Table C-5, that LOS standards shown for each link may vary due to irregularities in the model.

Intersection capacities were analyzed using turning movement volumes obtained from actual counts taken during the months of August and September 1989. Forty-seven intersections were analyzed for the evaluation of existing capacities. All of the 47 study intersections operate at LOS D or better. A few intersections may be characterized as approaching the maximum acceptable LOS value, LOS E.

Connectivity

The City of Palmdale's circulation system has, for the most part, developed around a grid system in which major arterials are spaced approximately every mile and secondary arterials are spaced every half-mile between the major arterials. As the capacity evaluation shows, this pattern appears to be providing a solid foundation for serving the community's mobility needs. The majority of the arterial segments are currently operating at LOS D or better, which indicates good traffic flow.

There are, however, many missing segments in the street pattern that currently result in connectivity problems, some of which will contribute to capacity problems in the future, as the City's population and traffic increase.

As the community develops, it is planned that the majority of the major and secondary arterials will be made continuous throughout the limits of the City. The following arterials are currently continuous along their entire lengths within the City: Avenue L, Avenue M, Palmdale Boulevard, Pearblossom Highway/Avenue T, 60th Street West, 30th Street West, 20th Street West, 10th Street West/Tierra Subida Avenue, Sierra Highway, 47th/50th Street East, 90th Street East, and 110th Street East.

80 W 80 W 70 W 60 W 50 W 40 W 30 W 20 W 15 W 10 W 5 E 10 E 15 E 20 E 25 E 30 E 35 E 40 E 50 E 70 E 80 E 110 E

Circulation



- AVE L
- AVE L-S
- AVE M
- AVE M-S
- AVE N
- AVE N-S
- AVE O
- AVE O-S
- AVE P
- AVE P-S
- AVE Q
- PALMDALE BLVD
- AVE R
- AVE R-S
- AVE S
- AVE T

Existing Traffic Volumes (1990) Palmdale General Plan

Adopted by City Council
1/25/93

Table C-5

Level of Service Analysis
Existing Volumes on Existing Network

Roadway	From/To	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C	LOS
EAST-WEST ARTERIALS							
Avenue L	10th St E/20th St E	2 LANES	MAJOR	15,000	140 +	0.01	A
	40th St E/50th St E	2 LANES	MINOR	12,000	130 +	0.01	A
	50th St E/110th St E	2 LANES	MINOR	12,000	230 +	0.02	A
Avenue M	70th St W/60th St W	2 LANES	MAJOR	15,000	2,800 +	0.19	A
	30th St W/Antelope Valley Fwy	2 LANES	MAJOR	15,000	9,000 +	0.60	A
	@ the Antelope Valley Fwy	2 LANES	MAJOR	15,000	9,000 +	0.60	A
	Antelope Valley Fwy/Sierra Hwy	4 LANES	MAJOR	30,000	17,500	0.58	A
	Sierra Hwy/Division St	4 LANES	MAJOR	30,000	19,200	0.64	B
	Division St/10th St E	4 LANES	MAJOR	30,000	19,200	0.64	B
	10th St E/15th St E	4 LANES	MAJOR	30,000	6,800	0.23	A
	15th St E/50th St E	2 LANES	MAJOR	15,000	9,600	0.64	B
Avenue M-8	70th St W/55th St W	2 LANES	MINOR	12,000	1,300	0.11	A
Avenue N	70th St W/60th St W	2 LANES	MINOR	12,000	4,400	0.37	A
	60th St W/30th St W	2 LANES	MAJOR	15,000	4,800	0.32	A
	30th St W/Antelope Valley Fwy	2 LANES	MAJOR	15,000	7,300 +	0.49	A
	Antelope Valley Fwy/10th St W	2 LANES	MAJOR	15,000	7,300 +	0.49	A
	10th St W/Sierra Hwy	2 LANES	MAJOR	15,000	3,100	0.21	A
	2000' W of 40th St E/60th St E	2 LANES	MAJOR	15,000	1,300 +	0.09	A
	80th St E/115th St E	2 LANES	MAJOR	15,000	1,300 +	0.09	A
Avenue N-8	70th St E/60th St E	2 LANES	MINOR	12,000	120 +	0.01	A
Avenue O	30th St W/10th St W	2 LANES	MAJOR	15,000	720 +	0.05	A
	90th St E/110th St E	2 LANES	MAJOR	15,000	120 +	0.01	A
Avenue O-8	20th St W/10th St W	2 LANES	MINOR	12,000	240 +	0.02	A
	0th St E/15th St E	2 LANES	MINOR	12,000	1,200 +	0.10	A
Rancho Vista Blvd	50th St W/S of Ave N	2 LANES	MAJOR	15,000	8,900	0.59	A
	S of Ave N/30th St W	4 LANES	MAJOR	30,000	7,300	0.24	A
Avenue P	30th St W/15th St W	4 LANES	MAJOR	30,000	19,300	0.64	B
	15th St W/10th St W	6 LANES	MAJOR	45,000	19,300	0.43	A
	10th St W/Sierra Hwy	4 LANES	MAJOR	30,000	19,400	0.65	B
	Sierra Hwy/0th St E	4 LANES	MAJOR	30,000	24,700	0.82	D
	0th St E/20th St E	4 LANES	MAJOR	30,000	11,100	0.37	A

Circulation

+ Estimated Volume, * Unacceptable Level of Service

C-60

Adopted by City Council
1/25/93

Table C-5

Level of Service Analysis
Existing Volumes on Existing Network

Roadway	From/To	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C	LOS	Circulation
	28th St E/30th St E	4 LANES	MAJOR	30,000	11,100	0.37	A	
	30th St E/50th St E	2 LANES	MAJOR	15,000	5,500	0.37	A	
	90th St E/110th St E	2 LANES	MAJOR	15,000	120 +	0.01	A	
Avenue P-B	10th St W/Division St	4 LANES	MINOR	36,000	960 +	0.03	A	
	Division St/Sierra Hwy	4 LANES	MINOR	24,000	960 +	0.04	A	
	8th St E/10th St E	2 LANES	MINOR	12,000	120 +	0.01	A	
	40th St E/50th St E	2 LANES	MINOR	12,000	240 +	0.02	A	
Avenue Q	Palmdale Blvd/Division St	2 LANES	MINOR	12,000	1,500	0.13	A	
	Division St/4th St E	2 LANES	MINOR	12,000	3,200	0.27	A	
	Sierra Hwy/20th St E	2 LANES	MAJOR	15,000	7,500	0.50	A	
	20th St E/40th St E	2 LANES	MAJOR	15,000	3,400	0.23	A	
Elizabeth Lake Rd	Goode Hill Rd/30th St W	2 LANES	MAJOR	15,000	4,600 +	0.31	A	
	30th St W/25th St W	2 LANES	MAJOR	15,000	2,900	0.19	A	
	25th St W/Fonholm Dr	2 LANES	MAJOR	15,000	2,900	0.19	A	
	Fonholm Dr/Palmdale Blvd	4 LANES	MAJOR	30,000	11,500	0.38	A	
Palmdale Blvd	Elizabeth Lake Rd/Antelope Valley Fwy	4 LANES	DIVIDED MAJOR	36,000	15,200	0.42	A	
	Antelope Valley Fwy/30th St E	4 LANES	DIVIDED MAJOR	36,000	35,400	0.98	F	
	30th St E/47th St E	4 LANES	DIVIDED MAJOR	36,000	20,100	0.56	A	
	47th St E/70th St E	2 LANES	MAJOR	15,000	12,700	0.85	D	
	70th St E/90th St E	2 LANES	MAJOR	15,000	12,700	0.85	D	
	90th St E/120th St E	2 LANES	MAJOR	15,000	5,900	0.39	A	
Avenue R	Tierra Subida Ave/Division St	2 LANES	MAJOR	15,000	5,600	0.37	A	
	Division St/4th St E	2 LANES	MAJOR	15,000	9,500	0.63	B	
	6th St E/20th St E	4 LANES	MAJOR	30,000	16,800	0.56	A	
	20th St E/30th St E	2 LANES EB, 1 LANE WB	MAJOR	22,500	15,400	0.68	B	
	30th St E/47th St E	2 LANES	MAJOR	15,000	12,500	0.83	D	
Avenue R-B	Division St/6th St E	2 LANES	MINOR	12,000	1,200 +	0.10	A	
	12th St E/25th St E	2 LANES	MINOR	12,000	1,900	0.16	A	
	1200' W of 30th St E/1200' E of 35th St E	2 LANES	MINOR	12,000	2,400	0.22	A	
	40th St E/1000' E of 47th St E	2 LANES	MINOR	12,000	1,800	0.15	A	
Avenue S	City Ranch Bypass/Tierra Subida Ave	2 LANES	MAJOR	15,000	2,600 +	0.17	A	
	Tierra Subida Ave/Antelope Valley Fwy	2 LANES	MAJOR	15,000	4,900	0.33	A	
	Antelope Valley Fwy/Sierra Hwy	2 LANES	MAJOR	15,000	13,700	0.91	F	
	Sierra Hwy/10th St E	2 LANES EB, 1 LANE WB	MAJOR	22,500	13,700	0.61	B	

+ Estimated Volume, * Unacceptable Level of Service

Table C-5

Level of Service Analysis
Existing Volumes on Existing Network

Roadway	From/To	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C	LOS
	16th St E/15th St E	2 LANES EB, 1 LANE WB	MAJOR	22,500	18,300	0.81	D
	15th St E/25th St E	4 LANES	MAJOR	30,000	18,300	0.61	B
	25th St E/35th St E	4 LANES	MAJOR	30,000	12,900	0.43	A
	35th St E/47th St E	2 LANES	MAJOR	15,000	10,000	0.67	B
	47th St E/3000' E of 47th St E	2 LANES	MAJOR	15,000	1,200 +	0.08	A
Pearlblossom Hwy	Sierra Hwy/Barrel Springs Rd	4 LANES	MAJOR	30,000	25,000	0.83	D
	Barrel Springs Rd/30th St E	2 LANES	MAJOR	15,000	17,200	1.15	F
	30th St E/35th St E	4 LANES	MAJOR	30,000	17,200	0.57	A
	35th St E/47th St E	2 LANES	MAJOR	15,000	11,700	0.78	C
	47th St E/Ave T	2 LANES	MAJOR	15,000	11,700	0.78	C
Avenue T	Pearlblossom Hwy/90th St E	2 LANES	MAJOR	15,000	11,800	0.79	C
	90th St E/120th St E	2 LANES	MAJOR	15,000	1,300	0.09	A
Barrel Springs Rd	Tierra Subida Ave/Sierra Hwy	2 LANES	MINOR	12,000	720 +	0.06	A
	West of 25th St E/25th St E	2 LANES	MINOR	12,000	6,600 +	0.55	A
	25th St E/Pearlblossom Hwy	2 LANES	MINOR	12,000	6,600 +	0.55	A
	Pearlblossom Hwy/40th St E	2 LANES	MINOR	12,000	1,200 +	0.10	A
	40th St E/Cheachuro Rd	2 LANES	MINOR	12,000	1,200 +	0.10	A
S. R. 130	Ave T/90th St E	2 LANES	MAJOR	15,000	14,500	0.97	F
	90th St E/120th St E	2 LANES	MAJOR	15,000	14,500	0.97	F

+ Estimated Volume * Unacceptable Level of Service

Circulation

C-62

Adopted by City Council
1/25/93

Table C-5
Level of Service Analysis
Existing Volumes on Existing Network

Roadway	From/To	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C	LOS	Circulation
NORTH-SOUTH ARTERIALS								
70th St West	Ave M/Ave M-8	2 LANES	MAJOR	15,000	600 +	0.04	A	
	Ave M-8/Ave N	2 LANES	MINOR	12,000	1,200 +	0.10	A	
60th St West	Ave M/Ave N	2 LANES	MAJOR	15,000	3,300	0.22	A	
Godde Hill Rd	60th St West/Elizabeth Lake Rd	2 LANES	MAJOR	15,000	3,300	0.22	A	
55th St West	Ave M-8/Ave N	2 LANES	MINOR	12,000	1,700 +	0.14	A	
30th St West	Ave M/Ave N	2 LANES	MAJOR	15,000	8,200 +	0.55	A	
	Ave N/Ave P	2 LANES	MAJOR	15,000	4,700	0.31	A	
	Ave P/Ave P-8	2 LANES	MAJOR	15,000	4,700 +	0.31	A	
25th St West	Ave P/Ave P-8	4 LANES	MINOR	24,000	3,200	0.13	A	
	Ave P-8/Elizabeth Lake Rd	4 LANES	MINOR	24,000	3,200	0.13	A	
20th St West	Ave M/Ave N	2 LANES	MAJOR	15,000	3,400 +	0.23	A	
	Ave N/Ave P	2 LANES	MAJOR	15,000	1,300 +	0.09	A	
15th St West	Ave N/Ave O	2 LANES	MINOR	12,000	360 +	0.03	A	
	Ave O/Ave O-8	2 LANES	MINOR	12,000	360 +	0.03	A	
	Ave O-8/Ave P-8	2 LANES	MINOR	12,000	360 +	0.03	A	
10th St West	Ave M/Ave N	2 LANES	MAJOR	15,000	10,300	0.69	B	
	Ave N/Ave O-8	2 LANES	MAJOR	15,000	10,000	0.67	B	
	Ave O-8/Ave P	4 LANES	MAJOR	30,000	10,000	0.33	A	
	Ave P/Palmdale Blvd	4 LANES	MAJOR	30,000	11,600	0.39	A	
Tierra Subida Avenue	Palmdale Blvd/Ave R	4 LANES	MAJOR	30,000	5,600	0.19	A	
	Ave R/Ave S	2 LANES	MAJOR	15,000	4,900	0.33	A	
	Ave S/Berrel Springs Rd	2 LANES	MINOR	12,000	800	0.07	A	
5th St West	Ave P-8/Palmdale Blvd	6 LANES	MINOR	30,000	4,700	0.16	A	
	Palmdale Blvd/Tierra Subida Ave	4 LANES	MINOR	24,000	4,700	0.20	A	
Devinson Street	1500' N of Ave Q/Ave R	2 LANES	MAJOR	15,000	5,300 +	0.35	A	
	Ave R/Ave R-8	2 LANES	MINOR	12,000	1,000 +	0.08	A	
5th St East	Ave Q/Palmdale Blvd	2 LANES	MINOR	12,000	2,200 +	0.18	A	

+ Estimated Volume, * Unacceptable Level of Service

Table C-5

Level of Service Analysis
Existing Volumes on Existing Network

Roadway	From/To	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C	LOS
Sierra Highway	Palmdale Blvd/Ave R-8	2 LANES	MINOR	12,000	2,200 +	0.18	A
	Ave R-8/Ave S	2 LANES	MINOR	12,000	2,200 +	0.18	A
	Ave M/Ave P	4 LANES	MAJOR	30,000	27,300	0.91	F
	Ave P/Ave Q	4 LANES	MAJOR	30,000	15,300	0.51	A
	Ave Q/Palmdale Blvd	4 LANES	MAJOR	30,000	15,300	0.51	A
	Palmdale Blvd/Ave R-8	4 LANES	MAJOR	30,000	11,800	0.39	A
	Ave R-8/Ave S	2 LANES	MAJOR	15,000	7,900	0.53	A
	Ave S/1200' S of Ave S	2 LANES	MAJOR	15,000	5,700	0.38	A
	1200' S of Ave S/3000' N of Barrel Springs Rd	4 LANES	MAJOR	30,000	5,000	0.17	A
	3000' N of Barrel Springs Rd/Pearlblossom Hwy	2 LANES	MAJOR	15,000	5,000	0.33	A
	Pearlblossom Hwy/Antelope Valley Fwy	4 LANES	MAJOR	30,000	31,000	1.03	F
	Ave I/Ave M	2 LANES	MAJOR	15,000	8,800	0.59	A
	Ave P/Palmdale Blvd	2 LANES	MAJOR	15,000	3,800	0.25	A
	Palmdale Blvd/Ave R-8	4 LANES	MAJOR	30,000	7,600	0.25	A
	Ave R-8/Ave S	2 LANES	MAJOR	15,000	4,200	0.28	A
10th St East	Ave P/Palmdale Blvd	2 LANES	MINOR	12,000	1,600 +	0.13	A
	Palmdale Blvd/Ave R	2 LANES	MINOR	12,000	3,600 +	0.30	A
15th St East	Ave I/Ave M	2 LANES	MAJOR	15,000	2,300 +	0.15	A
	Ave P/Ave Q	2 LANES	MINOR	12,000	7,200	0.60	A
	Ave Q/Palmdale Blvd	4 LANES	MINOR	24,000	7,200	0.30	A
	Palmdale Blvd/Ave S	2 LANES	MAJOR	15,000	7,800	0.52	A
20th St East	Ave I/Ave M	2 LANES	MAJOR	15,000	4,100	0.41	A
	Ave Q/Ave R-8	4 LANES	MAJOR	30,000	13,800	0.46	A
	Ave R-8/Ave S	4 LANES	MAJOR	30,000	13,200	0.44	A
	Ave S/4200' S of Ave S	4 LANES	MINOR	24,000	12,300	0.51	A
	4200' S of Ave S/Barrel Springs Rd	2 LANES	MINOR	12,000	12,300	1.03	F
25th St East	Ave P/Ave Q	2 LANES	MAJOR	15,000	5,300	0.35	A
	Ave Q/Ave R-8	4 LANES	MAJOR	30,000	7,700	0.26	A
	Ave R-8/Ave S	4 LANES	MAJOR	30,000	11,400	0.38	A
	Ave S/4200' S of Ave S	4 LANES	MINOR	24,000	11,400	0.51	A
	4200' S of Ave S/Barrel Springs Rd	2 LANES	MINOR	12,000	12,300	1.03	F
	Ave I/Ave M	2 LANES	MAJOR	15,000	1,400 +	0.09	A
30th St East	Ave P/Ave Q	2 LANES	MAJOR	15,000	5,300	0.35	A
	Ave Q/Palmdale Blvd	4 LANES	MAJOR	30,000	7,700	0.26	A
	Palmdale Blvd/1300' S of Palmdale Blvd	4 LANES	MAJOR	30,000	11,400	0.38	A
	1300' S of Palmdale Blvd/Ave R	1 LANE NB, 2 LANES SB	MAJOR	22,500	11,400	0.51	A
	Ave R/1000' S of Ave R	4 LANES	MAJOR	30,000	6,400	0.21	A

Circulation

+ Estimated Volume, * Unacceptable Level of Service

(General Plan Amendment 93-2, adopted by City Council October 13, 1993.)

C-64

Adopted by City Council

1/25/93

Table C - 5

Level of Service Analysis
Existing Volumes on Existing Network

Roadway	From/To	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C	LOS	Circulation
C-65	1600 S of Ave R/600' N of Ave R - B	4 LANES	MAJOR	30,000	6,400	0.21	A	
	600' N of Ave R - B/Ave R - B	4 LANES	MAJOR	30,000	6,400	0.21	A	
	Ave R - B/Ave S	4 LANES	MAJOR	30,000	6,400	0.21	A	
	Ave S/1600' S of Ave S	4 LANES	MAJOR	30,000	1,000 +	0.03	A	
	35th St East							
	Ave Q/Palmdale Blvd	2 LANES	MINOR	12,000	3,000 +	0.25	A	
	1200' N of Ave R/Ave R	2 LANES	MINOR	12,000	70 +	0.01	A	
	Ave R/Ave S	2 LANES	MINOR	12,000	1,200 +	0.10	A	
	Ave S/1600' S of Ave S	4 LANES	MINOR	24,000	600 +	0.03	A	
	40th St East							
	Ave L/Ave M	2 LANES	MAJOR	15,000	450 +	0.03	A	
	Ave M/Ave P	2 LANES	MAJOR	15,000	3,600 +	0.24	A	
C-65	Ave P/Palmdale Blvd	2 LANES	MAJOR	15,000	2,200	0.15	A	
	Palmdale Blvd/Ave S	2 LANES	MAJOR	15,000	3,300	0.22	A	
	Ave S/Pear Blossom Hwy	2 LANES	MAJOR	15,000	3,600	0.24	A	
	Pear Blossom Hwy/Barrel Springs Rd	2 LANES	MINOR	12,000	1,200 +	0.10	A	
	47th St East							
	Palmdale Blvd/Ave S	4 LANES	DIVIDED MAJOR	36,000	14,900	0.47	A	
	Ave S/Fort Tejon Rd	4 LANES	DIVIDED MAJOR	36,000	16,900	0.47	A	
	Fort Tejon Rd/Pear Blossom Hwy	2 LANES	MAJOR	15,000	14,000	0.93	F	
	Pear Blossom Hwy/Barrel Springs Rd	2 LANES	MINOR	12,000	14,500	1.21	F	
	Fort Tejon Rd							
	47th St E/Pear Blossom Hwy	4 LANES	MAJOR	30,000	3,000	0.10	A	
	50th St East							
	Ave L/Ave M	2 LANES	MAJOR	15,000	4,200 +	0.28	A	
	Ave M/Ave P	2 LANES	MAJOR	15,000	7,000	0.47	A	
	Ave P/Palmdale Blvd	2 LANES	MAJOR	15,000	6,400	0.41	A	
C-65	60th St East							
	Ave L/Ave N	2 LANES	MINOR	12,000	120 +	0.01	A	
	70th St East							
	Ave L/Ave N	2 LANES	MAJOR	15,000	200 +	0.01	A	
	Ave N/Palmdale Blvd	2 LANES	MAJOR	15,000	200	0.01	A	
	90th St East							
	Ave L/Ave N	2 LANES	MAJOR	15,000	3,000 +	0.25	A	
	Ave N/Palmdale Blvd	2 LANES	MAJOR	15,000	6,100 +	0.41	A	
	Palmdale Blvd/Ave S	2 LANES	MAJOR	15,000	5,500 +	0.37	A	
	Ave S/Ave T	2 LANES	MAJOR	15,000	5,500 +	0.37	A	
	Ave T/S.R. 138	2 LANES	MAJOR	15,000	5,500 +	0.37	A	
	S.R. 138/Fort Tejon Rd	2 LANES	MINOR	12,000	400 +	0.04	A	
C-65	110th St East							
	Ave N/Ave S	2 LANES	MINOR	12,000	1,100 +	0.09	A	

+ Estimated Volume, * Unacceptable Level of Service

Table C-6

Level of Service Analysis
Existing Volumes on Existing Network

4

Roadway	From/To	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C	LOS
STATE ROUTE 14	Ave L/Ave N	6 LANES		120,000	63,300 +	0.53	A
	Ave M/Ave P	6 LANES		120,000	59,000 +	0.50	A
	Ave P/Palmdale Blvd	4 LANES		80,000	55,200 +	0.69	B
	Palmdale Blvd/Ave S	4 LANES		80,000	49,500 +	0.62	B
	Ave S/Los Angeles Forest Hwy	3 LANES SB, 2 LANES NB		100,000	50,500 +	0.51	A
	Los Angeles Forest Hwy/Crown Valley Rd	3 LANES SB, 2 LANES NB		100,000	74,000 +	0.75	C

C-66

Adopted by City Council
1/25/93

Circulation

+ Estimated Volume, * Unacceptable Level of Service

Circulation

Several arterials are not planned to be or cannot be continuous because they intercept the United States Air Force Plant area or the proposed Palmdale Regional Airport site. These arterials include Avenues N through Q, 10th through 40th Streets East, and 60th through 80th Street East.

Future Arterial Needs

To help mitigate the effects of future traffic growth and improve the circulation system within the City, many of the existing gaps in the existing arterial system will need to be closed to accommodate projected buildout traffic conditions. The arterials that are recommended to be made continuous throughout the City are: Avenue M, Avenue P-8, Avenue R, Avenue R-8, Avenue S, Division Street, 10th Street East, and 110th Street East.

In addition, several new north/south and east/west arterials are planned in the southwestern region of the City (south of Elizabeth Lake Road and west of Tierra Subida Avenue). The east/west facilities include Ritter Ranch Road (which is the westerly extension of Avenue S); City Ranch Road (which is the westerly extension of Avenue R); and Santa Fe Hills Drive. The north/south facilities include Bridge Road and Ranch Center Drive.

The analysis indicated that even with implementation of transportation demand management measures, some arterial locations within the City will be operating at LOS D or worse at the year of land use buildout. The most significant locations are listed below:

- Avenue M between 30th Street West and Division Street
- Avenue P between 15th Street West and Sierra Highway
- Avenue Q
- Elizabeth Lake Road between Bridge Road and Palmdale Boulevard
- Palmdale Boulevard between Elizabeth Lake Road and 30th Street East
- Avenue R between Tierra Subida Avenue and 47th Street East

- Godde Hill Road
- 10th Street West between Avenue M and Palmdale Boulevard
- 5th Street West between Avenue P-8 and Tierra Subida Avenue
- Division Street between Avenue P and 1500 feet north of Avenue Q
- Sierra Highway near the Antelope Valley Freeway
- 10th Street East between Avenue P and Palmdale Boulevard
- 20th Street East between Palmdale Boulevard and Avenue S
- 25th Street East near Avenue S
- 30th Street East between Avenue P and Avenue Q
- 40th Street East south of Pearblossom Highway

Intersection capacities in the new Circulation Plan at land use buildout were also analyzed. The increased capacity of the new Circulation Plan will improve overall intersection traffic operations at buildout. The addition of the new freeway facility along the alignment of Avenue P-8 will facilitate east/west travel movements in the City. Parallel facilities such as Avenue M are expected to experience slight improvements in traffic operations. Nonetheless, it is anticipated that some intersections may operate beyond LOS D. Unacceptable levels of congestion are likely to occur without further specific capacity improvements at intersections or reduction of traffic demand through aggressive local TDM measures. These focused capacity improvements may include an increase in the number of through lanes, additional turning lanes, channelization of various intersections, computerized traffic signal coordination measures, etc.

4. Local and Collector Streets

The recent rapid development of single-family residential subdivisions in Palmdale has produced thousands of affordable homes in the last few years. However, the same rapid pace of development has sometimes caused traffic problems on the local neighborhood street systems. In some areas, such as segments of Avenue R-4 and Spanish Broom Drive, local streets provide through access and attract high traffic

Circulation

volumes at excessive speeds. In other areas, the mass of cul-de-sacs and discontinuous local streets bearing the same name has created confusing and circuitous networks, which are difficult to navigate for both visitors and emergency vehicles.

Proper design of local streets is critical to creation of livable neighborhoods. Both safety and aesthetic concerns must be addressed. Streets that are too long and straight contribute to a monotonous streetscape and potential traffic hazards associated with speeding traffic. Alternatively, overly complex neighborhood street networks may lack a logical flow pattern, provide an inefficient traffic pattern, and impede emergency vehicle response times.

Local street design issues must be addressed both at the in-tract level and on a broader neighborhood scale. Because there are many smaller parcels in the City, it can be expected that multiple small subdivisions may be proposed within a larger neighborhood unit. In these situations, local street connections between the unrelated subdivisions may be desirable to ensure neighborhood linkages. However, these linkages must avoid creation of local streets functioning as collectors. When this occurs, and multiple lots front that street, hazards from excessive vehicular speeds may result. Therefore, it is critical that both existing and planned circulation systems be considered to provide the proper balance between creating neighborhood linkage and avoidance of high volume through traffic problems.

In the context of neighborhood planning and local streets, cul-de-sacs provide both opportunities and potential constraints. A properly located and designed cul-de-sac can provide a residential setting where traffic speeds and volumes are reduced. Residents are generally comfortable with front yard activities in a cul-de-sac setting. However, the excessive use of cul-de-sacs can create numerous local intersections, poor integration of neighborhood components, uneven distribution of traffic volumes on other local streets, and disrupted traffic flow patterns. "Dog leg" cul-de-sacs, with one or more turns between the bulb and the outlet, result in dead ends that are not apparent when the street is entered.

The key to successful future neighborhood planning will be creation of a local street network that provides optional travel paths for traffic dispersal while avoiding an overly regimented grid system. The number of local street intersections on two arterial and collector streets must be at defined intervals to provide a logical internal street pattern. Efficiency is desired; however, it must not be accomplished at the expense of neighborhood safety via long, straight streets.

To address these issues, policies for local and collector street design were drafted and accepted by the City Council as interim policies in February, 1992 ("Subdivision Design Guidelines"). These policies have been incorporated into the General Plan policy sections, where appropriate, including the Circulation Element (see Objectives C1.3 and C1.4).

A need was also identified to develop special street standards for hillside areas, rural developments and private gated communities. Opportunities exist to develop special standards which could minimize grading in hillside areas, maintain the character of rural areas, and to ensure that private streets are constructed to appropriate standards. The City will develop special street standards to serve these needs.

5. Truck Routes

On December 9, 1991, the Palmdale City Council adopted Ordinance No. 953, establishing truck routes within the City of Palmdale. The Ordinance regulates vehicles exceeding 10,000 pounds gross weight and prohibits their use on undesignated City streets, except when delivering or otherwise servicing uses on such streets. Designated truck routes include the following (see Exhibit C-6):

- 10th Street West from Avenue P to Avenue M
- Sierra Highway from the Antelope Valley Freeway to Avenue M
- 50th Street East from Palmdale Boulevard to Avenue M
- Avenue M from the Antelope Valley Freeway to 50th Street East
- Avenue P from 10th Street West to 50th Street East
- City Ranch Road, Tierra Subida, Rayburn Road and Avenue R from the Antelope Valley Landfill to Sierra Highway
- Avenue S from the Antelope Valley Freeway to Sierra Highway
- Pearblossom Highway from Sierra Highway to Fort Tejon Road
- Avenue T from Fort Tejon Road to 90th Street East

Additional truck routes may be needed to serve the access needs of the eastside Mineral Resource Area (MRE), particularly for that portion north of the railroad tracks. Establishing truck routes connecting this area to Avenue T or Palmdale Boulevard could prevent quarry trucks from using Avenue R, Avenue R-8 and Avenue S as primary access routes. Policy C1.7.1 addresses the need to maintain the City's truck route program.

Circulation

6. Congestion Management Plan

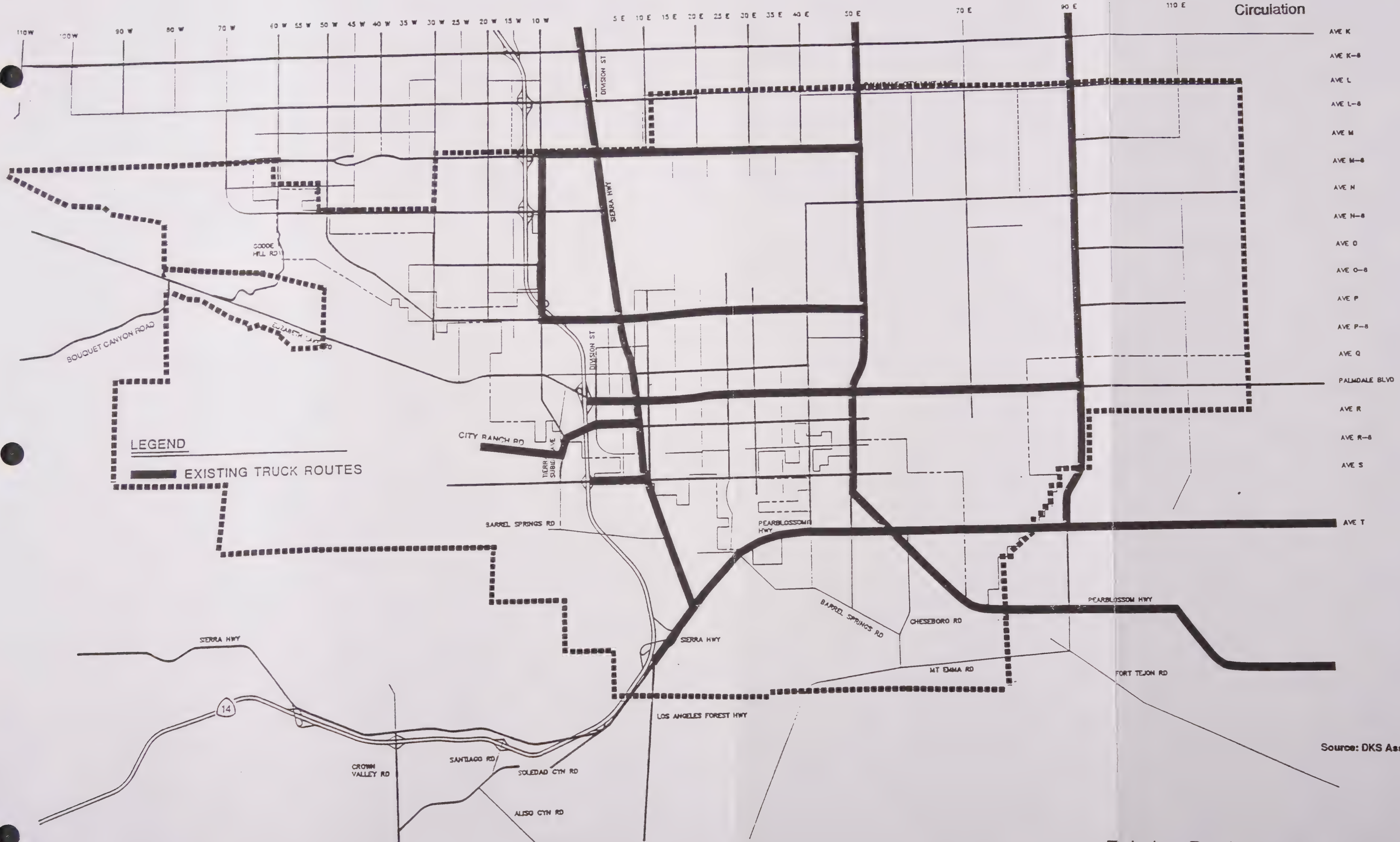
The Congestion Management Program (CMP) was enacted by the state legislature in 1989 to improve traffic congestion in California's urbanized areas. The program became effective with the passage of Proposition III in June, 1990, which increased the state gas tax by nine cents over a five year period. The increase in funds generated by Proposition III will be available to cities and counties for regional road improvements, provided that they are in compliance with CMP requirements. If a city does not comply with the CMP, it could lose funding under Proposition III. Therefore, it is imperative for Palmdale to develop local programs to comply with the Congestion Management Program.

Under the program, regional agencies are designated within each County to prepare and administer the CMP. In Los Angeles County, the Congestion Management Agency is the Los Angeles County Transportation Commission (LACTC). LACTC is in the process of drafting the countywide Congestion Management Plan and preparing an Environmental Impact Report for the Plan. When completed, the CMP Exhibit C-6 (Map) will be submitted to SCAG, which will determine the Plan's consistency with the Regional Mobility Plan.

After the CMP plan is adopted, each City within the County must take steps to administer elements of the plan locally. The City's responsibilities include the following:

- Assisting in monitoring the CMP system;
- Adopting and implementing a trip reduction and travel demand ordinance;
- Analyzing the impacts of local land use discussions on the regional transportation system; and,
- Preparing annual deficiency plans for portions of the CMP system where level of service standards are not maintained.

LACTC will annually review the City's performance of these responsibilities to ensure they are in compliance with the CMP. After notice and a correction period, LACTC will report local agencies who are out of compliance to the State Controller, who will then withhold a portion of their state gas tax funds.



- AVE K
- AVE K-8
- AVE L
- AVE L-8
- AVE M
- AVE M-8
- AVE N
- AVE N-8
- AVE O
- AVE O-8
- AVE P
- AVE P-8
- AVE Q
- PALMDALE BLVD
- AVE R
- AVE R-8
- AVE S
- AVE T

Source: DKS Associates

LACTC adopted the County's Congestion Management Plan in November, 1992. As approved, the CMP includes the following roadways within the City of Palmdale:

- Antelope Valley Freeway (Highway 14)
- State Route 138

After adoption of the CMP, levels of service on these roadways must stay at LOS E or better; if they do not, the City must prepare a deficiency plan to bring the level of service back up to LOS E. Under the CMP legislation, once a roadway is entered into the CMP network it cannot be deleted, even if service levels are ultimately improved. Because the City is responsible for monitoring and reporting service levels on all CMP roadways, the City's position has been to discourage the addition of any additional links into the CMP network.

The City's policy since 1991 has been to condition development projects to comply with CMP requirements. Policy C2.1.5 reinforces the City's intent to maintain compliance with the CMP process.

7. Street System Maintenance

Presently the City contracts with Los Angeles County Department of Public Works to provide maintenance on public streets within Palmdale. Services provided include street sweeping, filling of potholes and cracks, snowplowing, maintenance of drainage structures, and bridge inspection. It is anticipated that, in the future, the City will assume these maintenance responsibilities, as funds become available to establish a public works corporation yard and acquire street maintenance equipment. The City could begin phasing in some maintenance duties within the next five years, and fully take over maintenance responsibilities within ten to twelve years, depending on funding availability.

Some portions of the Planning Area require additional street maintenance due to substandard street sections. Several of the unincorporated County "islands" currently under consideration for annexation were developed without curbs, gutters, sidewalks or drainage. As a result, stormwater runoff undermines the paving and maintenance costs are increased. As these older areas become redeveloped, road improvements will be required to upgrade the street systems.

Circulation

In general, street maintenance levels are adequate to meet existing City needs. As the City continues to develop and expand, the contract maintenance costs will increase to the point where it will be more economical for the City to take over this function.

Private streets are required to be maintained by property owners or homeowners associations. Objective C1.6 and related policies address road maintenance issues.

B. Public Transit and Alternative Travel Modes

1. Fixed Route Bus Service

Bus service within the City of Palmdale is provided through the Antelope Valley Transit Authority (AVTA), a joint powers agency whose members also include the City of Lancaster and Los Angeles County. The AVTA recently completed a five-year plan for service within the Antelope Valley, the Antelope Valley Transit Need Plan. They are currently developing a ten-year transit plan for the area.

The AVTA is responsible for overseeing bus services, including selection of service provider and establishment of routes, schedules and hours of operation. Recently AVTA awarded the service contract to DAVE Transportation Services. Service includes fifteen buses in service and five buses in reserve. Weekday service includes five core urban routes and four supplemental routes. Supplemental routes or additional buses are utilized during morning and afternoon hours on school routes. Student bus use to and from school is causing extra service requirements during limited hours. Saturday service will include five core routes in the urban area.

Bus frequency is two bus trips per hour on inter-city routes. Service hours are from 5:30 a.m. to 8:00 p.m. on weekdays and 8:30 a.m. to 6:00 p.m. on Saturday. This level of bus service represents a considerable improvement of service levels before 1992, in terms of geographic coverage, frequency of service, and span of service. Total hours of service have almost doubled over 1991 levels.

The five fixed routes serve many of the major thoroughfares in Lancaster and Palmdale. Three of the five routes either terminate or pass through the Antelope Valley Mall, which functions as a focal point for local service. Route locations are shown on Exhibit C-7.

ANTELOPE VALLEY

Modified Interim Local Bus Routes

Routing

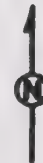
Orange Line	—————
Blue Line	—————
Red Line	—————
Green Line	—————
Purple Line	—————

Frequency

60 min.	—————
30 min.	—————

Exhibit C-7

Circulation



Adopted by City Council
1/25/93

Circulation

2. Inter-City Bus Services

DAVE Transportation Services operates two commuter bus lines between Palmdale and central Los Angeles and the San Fernando Valley. Nine buses are in service with two in reserve. Service operates on Monday through Friday, with seven trips to downtown Los Angeles on Route 785 and two trips to the San Fernando Valley on Route 787. Routes are shown on Exhibit C-8.

Service is available in the morning from 4:30 a.m. to 6:00 a.m. trips to Los Angeles and the San Fernando Valley, and in the afternoon for return trips to Palmdale from 3:30 p.m. to 5:30 p.m.

Under the administration of AVTA, commuter bus service was expanded substantially in 1992. The seven existing service runs will increase to nine as ridership increases. Total service hours were increased 50 percent over 1991 service levels.

In addition to AVTA services, Greyhound Lines provides bus service to Lancaster and Palmdale, primarily as intermediate stops along routes heading toward central or northern California, or Los Angeles. Service is limited to two trips in each direction, and tickets have to be purchased from the driver. A limited number of Palmdale residents use this service as a commuter bus to get to and from work in areas such as downtown Los Angeles.

Antelope Valley Airport Express offers a reservation-only scheduled van between Antelope Valley and Los Angeles, as well as similar service to airports.

3. Dial-A-Ride Bus Service

Dial-A-Ride service is provided by DAVE Transportation Services, which operates thirteen vans in service, and two vans in reserve. Services are offered to disabled persons and senior citizens (age 62 and older) with priority given to persons determined to be eligible for ADA paratransit, between 5:30 a.m. and 8:00 p.m. on weekdays and between 8:30 a.m. and 6:00 p.m. on Saturdays. On Sundays, Dial-A-Ride services are available to the general public residing within the service area. Outside the service area, capacity-constrained service is available to the general public on weekdays between 7:30 a.m. and 6:00 p.m. The service area boundary is shown on Exhibit C-9.

ANTELOPE VALLEY

PROPOSED DIAL-A-RIDE

Circulation

LOS ANGELES COUNTY LINE

RURAL ZONE 2

SAN ANDREAS FAULT

LOS ANGELES
AQUEDUCT
(170 St. West)
LAKE HUGHES

ANGELES
NATIONAL
FOREST BOUNDARY

RURAL ZONE 1

LANCASTER

PALMDALE

PEARLAND

LITTLEROCK

ACTON

RURAL ZONE 2

140 ST. E.

AVE. K

170 ST. E.

AVE. M

180 ST. E.

LAKE LOS ANGELES

180 ST. E.

PALMDALE BLVD.

185 ST. E.






PEARBLOSSOM

ANGELES
NATIONAL
FOREST BOUNDARY

LOS ANGELES COUNTY LINE

Modified Interim Local Bus Routes

Routing

Orange Line 
Blue Line 
Red Line 
Green Line 
Purple Line 

Frequency

60 min. 
30 min. 

Circulation

Contributions are also made by the City of Los Angeles and more than 1,000 private companies which utilize CTS.

CTS operates 86 vans which serve vanpoolers in the Palmdale area who travel south to communities in the San Fernando Valley and Los Angeles. Each van seats between 12 and 15 passengers.

CTS estimates that 21 percent of the Antelope Valley commuters are using vanpool services. This is higher than the regionwide average of 17 percent of commuters who are utilizing vanpools. CTS continues to organize additional vanpools as the commuting population increases.

CTS also organizes car and vanpools for commuters and estimates that 5 percent of the Antelope Valley commuters carpool. The City encourages carpooling by providing park-and-ride lots. Developers and employers are also providing park-and-ride lots in convenient locations for commuting. Currently there is a City of Palmdale park-and-ride lot located at Avenue S and the Antelope Valley Freeway (700 spaces). The City is assisting Los Angeles County in construction of a park-and-ride lot on Sierra Highway near the Antelope Valley Freeway (300 spaces). In addition, developers or employers have provided park-and-ride lots at Avenue P near the Antelope Valley Freeway in the Walmart store parking lot (200 spaces) and the Target store parking lot (52 spaces), and on Avenue P in the Lockheed facility parking lot (133 spaces). Additional park-and-ride spaces will be provided within the City as need and funding sources are identified.

6. Paratransit Services

Senior and transportationally-handicapped paratransit service in Palmdale is provided by four nonprofit organizations with county and/or state funding and two private companies. Service providers include the following:

- Antelope Valley Committee on Aging (Public)
- Los Angeles County Community and Senior Citizen Services Department (Public)
- North Los Angeles County Regional Center (Public)
- Independent Senior Center (Public)
- Mediride (Private)
- Antelope Valley Taxi (Private)

7. Transportation Demand Management (TDM) Measures

The City of Palmdale has been pro-active in promoting reductions in trips through ride-sharing programs. As noted above, the City has provided and required developers to provide several park-and-ride sites throughout the City. In the future, the City will formulate a comprehensive park-and-ride plan to coordinate location of these facilities with public transit routes.

Other TDM measures will include preparation and adoption of a TDM Ordinance, in compliance with the Congestion Management Plan. Various TDM measures which might be addressed in this ordinance include:

- Require that if employers subsidize parking, they also subsidize transit;
- Proactive work place based promotion and marketing of commute alternatives, employee rideshare coordinators and Transportation Management Organizations;
- Financial subsidy for transit riders and carpoolers including fare subsidies and/or transportation allowance;
- Employee-paid parking charges;
- Provision of midday transportation and guaranteed-ride-home for ridesharers;
- Walk-accessible transit services;
- Preferential treatments for ridesharing, including parking and high occupancy vehicle facilities;
- Modified work weeks;
- Flexible work hours; and,
- Work at home and satellite work centers.

Circulation

C. Rail Service

The Southern Pacific Transportation Company owns and operates two rail lines which traverse the City of Palmdale. The Valley Mainline, located adjacent and parallel to Sierra Highway, generally bisects the Planning Area from north to south. The Colton Cutoff line branches off from the main line south of Avenue R and runs easterly towards the Cajon Pass in San Bernardino County, where it heads south into the cities of San Bernardino and Colton. These lines are illustrated on Exhibit C-10.

Trains run twenty-four hours a day on these two lines, with approximately fourteen to sixteen trains daily around the clock. The peak volume of train traffic occurs during the early morning hours between 1:00 a.m. and 5:00 a.m. Another fleet is run in the afternoon and evening hours, while mid-day schedules vary daily. Sunday traffic is light, but rail activity is heavy during the rest of the week.

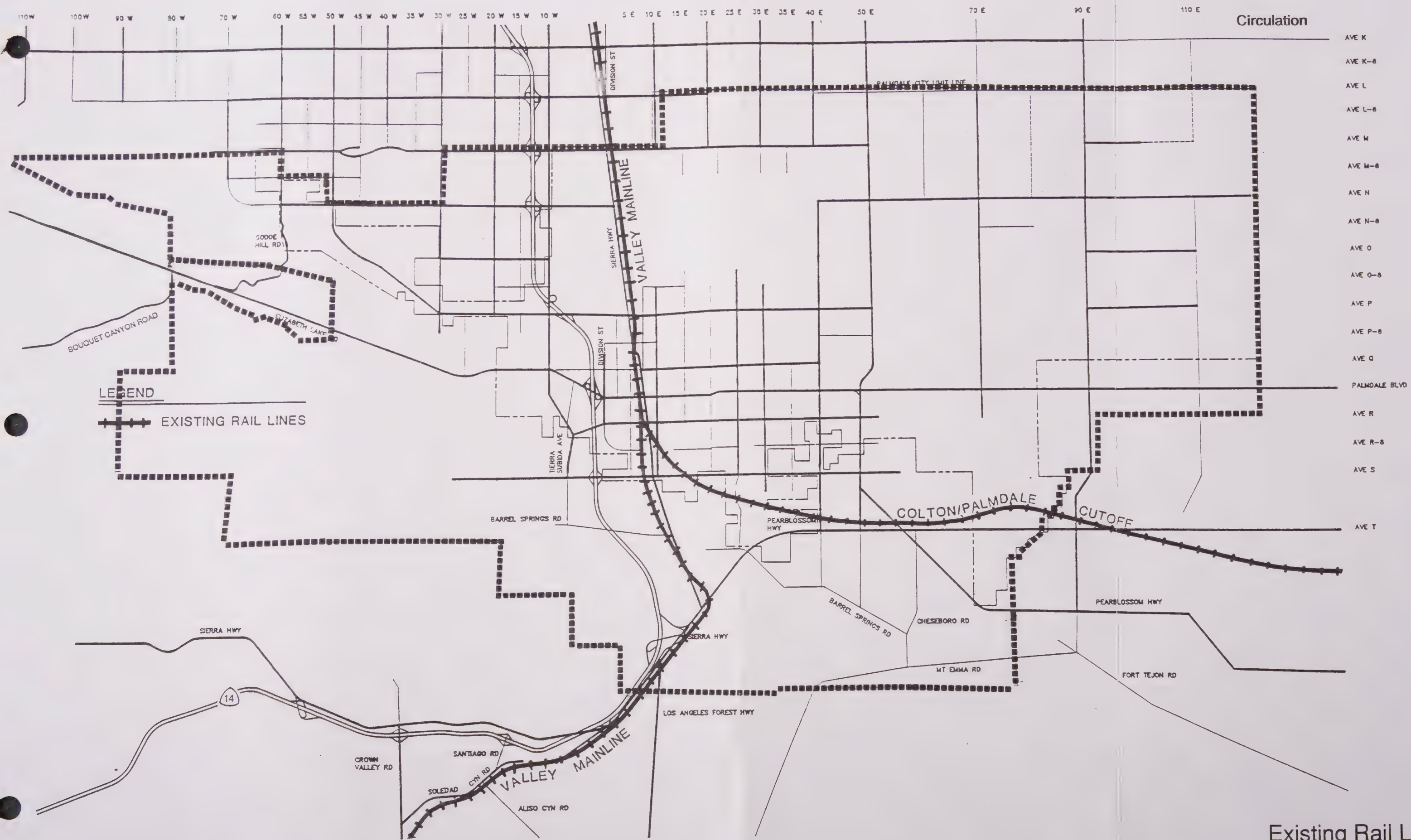
All rail traffic through Palmdale is used for freight. There is currently no passenger rail service offered, and a Southern Pacific representative has indicated that there are no future plans for passenger service. Freight traffic does not run on a regular schedule, but trains are called up as crews and power become available. Customers are informed when their goods arrive.

On a recent (May, 1992) check with the Southern Pacific office in Mojave, twelve trains were scheduled over an eighteen-hour period, carrying between 1,000 and 2,000 cars, with a freight tonnage of between 50,000 and 60,000 pounds. This volume was said to be typical.

The Palmdale rail facilities are under the supervision of a yardmaster located in Mojave. Palmdale contains a maintenance office charged with maintenance of the tracks throughout the City.

Two privately-owned spurs exist within the industrial area of the City, branching off the Valley Mainline in the vicinity of Avenue P-4 and P-8, and extending east to 15th Street East. One of these is in use by a lumber company, and the other by a manufacturing company.

Circulation planning issues relating to rail facilities include the railroad lines' interface with the existing street system. Currently there are grade separated railroad crossings at Sierra Highway and at Avenue S, with additional at-grade crossings on section-line



roads. In the future, the City will promote construction of grade separations at arterial crossings of the railroad, particularly at Palmdale Boulevard. This goal is reflected in Circulation Policy C1.2.4.a. A crossing will also be needed where 62nd Street East intersects with the Colton Cutoff rail line.

A land planning issue relating to the railroads is the opportunity to promote additional rail-supported industry in Palmdale. Palmdale's location at the edge of the Pacific Rim and between Interstates 5 and 15 provides an opportunity to utilize various transportation systems to move raw materials and finished products from the Los Angeles basin to points east and north. In addition, the City's applications for Enterprise Zone and Free Trade Zone status will provide incentives for industry to locate in rail-served industrial areas.

Another land use issue of concern is the transition between railroad lines and adjacent residential uses within certain areas of the City, particularly where the rail lines are elevated. Care must be taken to protect residences from excessive noise and vibration caused by train traffic. These issues are addressed in the Land Use and Community Design Elements.

Future long-range regional plans call for a high-speed rail line connecting the Palmdale Regional Airport to Los Angeles International Airport (LAX). LACTC has included this line in its 30-year regional transportation plan, and the City of Los Angeles Department of Airports, which owns Palmdale Regional Airport and the surrounding 17,000 acres of land, is promoting the concept. Phase 1 of the project calls for extending the high-speed rail line from LAX to Sylmar, while Phase 2 will complete the line from Sylmar to Palmdale. Within the Palmdale Planning Area, the line is proposed to extend along the median strip of Highway 14 to Avenue P-8, then head westerly to the airport complex within the right-of-way of the future 138 freeway. Stations are proposed to be located at the interchange of Avenue S and Highway 14, and at the airport. LACTC has issued a Request for Proposals for design, financing and construction of this line. However, no firm dates have been established for completion of either phase. Construction will undoubtedly be closely tied with expansion of the Palmdale airport facilities.

Another future rail service within Palmdale will be Metro-Link, a commuter rail service. In fall of 1992, service began between the City of Santa Clarita and Union Station in Los Angeles, and the feasibility of extending service to Palmdale is currently being studied. Metro-Link uses existing railroad lines and purchases the right to run trains on them. Cars will be run in peak commute periods.

Circulation

Until Metro-Link is extended to Palmdale, a trial commuter bus run will be made from Palmdale to the rail station in Santa Clarita. This demonstrator "feeder line" will be run for a six to twelve month period, and evaluated for its ability to attract and serve commuters to Los Angeles employment centers. The likelihood of commuters transferring from a commuter bus to a commuter train and possibly to a third public transit mode in Los Angeles is unknown at this time.

D. Air Service

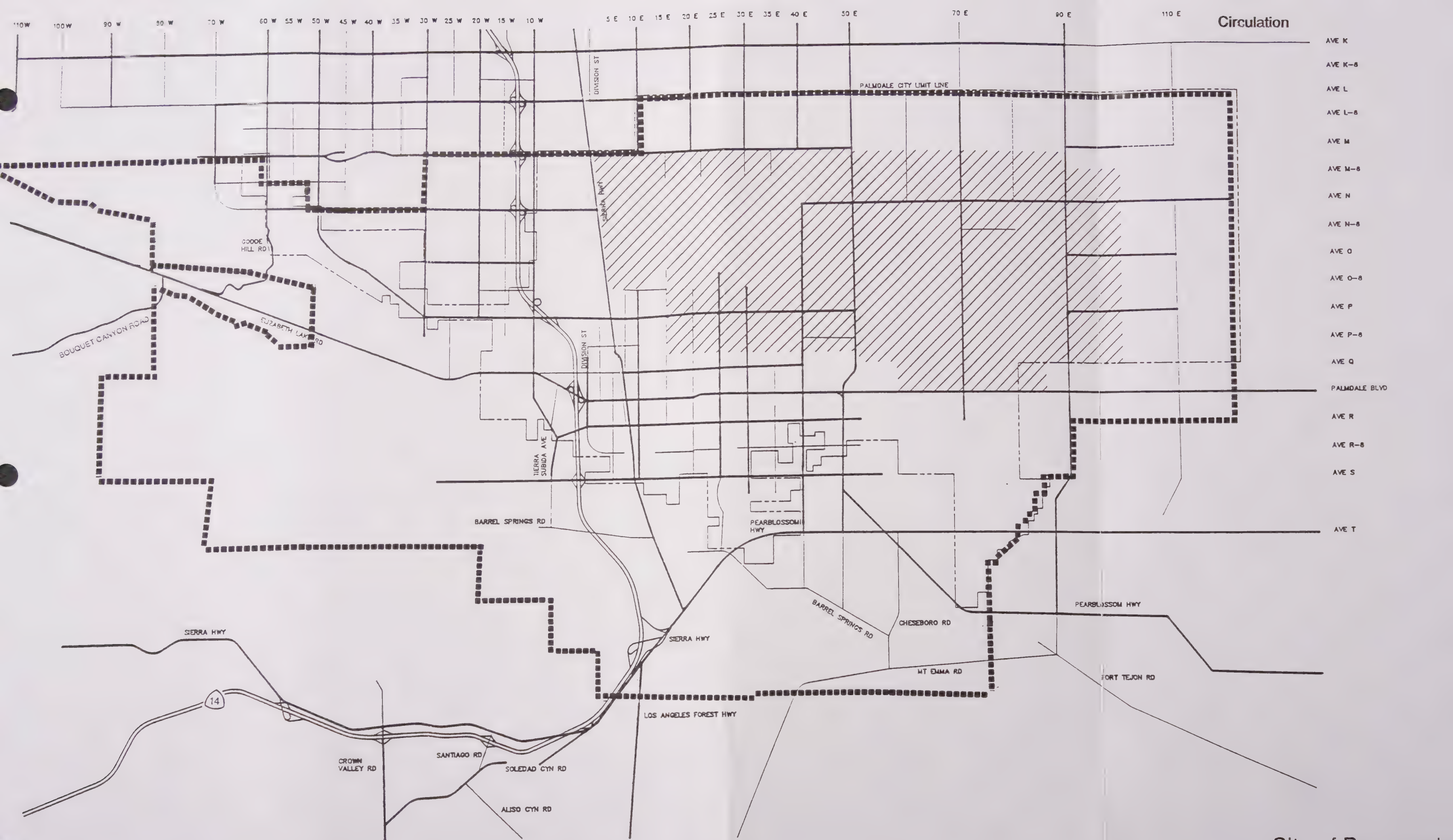
As noted above, the Los Angeles County Division of Airports owns over 17,000 acres of land within the community of Palmdale, surrounded on all sides by incorporated City territory but presently not annexed to the City (see Exhibit C-11). Long-range plans call for development of a regional airport at the site, which would be linked to LAX by a high speed rail line and by a new freeway linking Highway 14 to the site along an alignment following existing Avenue P-8.

Although the Division of Airports has not constructed its own landing facilities at this time, it has an agreement with Air Force Plant 42 to utilize Air Force landing strips for up to 50 operations per day. A representative of Skywest, the commercial serving Palmdale, states that currently seven commercial flights per day use the facilities: six daily flights to LAX and one daily flight to Palm Springs.

The Division of Airports is under the jurisdiction of an Airport Commission. The Airport Commission has negotiated an agreement with the Air Force to increase usage up to 200 flights per day; however, the agreement is subject to environmental review and an Environmental Impact Report must be prepared prior to execution of the agreement. South Coast Air Quality Management District regulations call for an air quality certification, requiring purchase of emissions credits and other measures, which may delay the planned expansion of use.

Current airport use in Palmdale (March, 1992) is summarized as follows:

- Number of passengers served: 2,362
- Number of air carrier flights (over 12,500 lbs): 216
- Number of air taxi flights (under 12,500 lbs): 470



- Number of military flights: 3,990
- Number of general aviation flights (private jets, small propeller driven aircraft, corporate jets): 1,175

Circulation planning issues relating to airport facilities include widening of the Avenue P-8 corridor to an ultimate freeway right-of-way; the future extension of high-speed rail service to the airport; and the barrier effect of the airport facility (along with Plant 42) on through traffic between Sierra Highway and 50th Street East. These issues have been dealt with in the circulation policies and plan map.

Land use planning issues relating to airport facilities include the effects of noise and safety in overflight areas. To the extent feasible, these issues have been dealt with on the Land Use Plan, and in the Safety and Noise Elements. Where existing development within overflight areas precluded full compliance with airport land use policies, these uses were recognized on the Land Use Plan; this situation occurred within a narrow strip of land south of Avenue Q between 10th and 25th Streets East. However, the City has identified future airport expansion as a unique opportunity for Palmdale, and has affirmed its intent to protect future airport operations throughout the Elements of this General Plan.

A significant environmental issue relating to airport operations as preservation of air quality; policies for protection of air quality from increased airport use are included in the Environmental Resource Element.

In January, 1992, the County Airport Land Use Commission adopted a County-wide Comprehensive Airport Land Use Plan. This plan considers the future expansion of Palmdale Regional Airport, and contains policies for future land uses adjacent to the airport in order to protect air operations. This General Plan is consistent with the County's Airport Land Use Plan, as required by state law.

E. Circulation Considerations

Provision of adequate circulation is vital to the long-term planned development of the City. Additionally, maintaining air, rail and transit links between the City and the surrounding region is critical for sustaining economic development and developing jobs for Palmdale residents. Construction of needed circulation facilities will occur over a

Circulation

long time frame. The primary challenge for the City is to assure that adequate circulation facilities are properly phased and available for use at the time they are needed. The rate at which circulation facilities are constructed will be affected by the following considerations:

1. Fiscal Constraints

The fundamental element of the City's circulation system is the roadway network, most of which will be constructed incrementally as the adjacent property develops. Some portions of the network may need to be constructed prior to the development of the adjacent property in order to maintain connectivity and levels of service. Other circulation facilities, such as railroad crossings or bridges, may be regionally beneficial and require cost of construction to be spread beyond adjacent properties. Potential funding sources for these special circulation facilities may include traffic impact fees, special assessment or Mello Roos districts, and transportation improvement funds. The City will need to continue to use public financing districts where necessary, and explore other creative ways of obtaining financing to build circulation facilities as needed to adequately serve ongoing development.

2. Development Patterns

The City has developed in a dispersed pattern with vacant areas surrounded by new development. This scattered development pattern makes inefficient use of circulation facilities and increases the per unit cost of constructing the future roadway network. General Plan policies encourage infill development to efficiently utilize the existing roadway network and require new development to support itself, without significantly impacting existing residents.

3. Environmental Considerations

The construction and future use of the City's planned circulation system could affect the natural environment in a variety of ways. For example, grading for roadways could potentially displace plant and animal communities, alter landforms or disturb cultural resources. Future use of the circulation system will affect air quality, noise and growth within the region. However, the planned circulation system is not an independent development project, but rather is intended as a tool which will allow the community to develop according to the proposed Land Use Plan and allow the community to realize many of its economic development goals. The goals of environmental protection and economic development may at times conflict, requiring the City to consider alternatives and strike a balance between both needs.

4. The Need to Retrofit Roadway Improvements into Developed Areas

Several rural areas, which are not currently within the City boundaries but are expected to be annexed within the life of the General Plan, lack paved roadways and through streets. The City will need to develop programs to fund and construct needed roadway improvements, without financially impacting the City or overburdening the affected property owners in these annexation areas.

5. Regulation from Other Agencies

Development of the City's planned circulation system will be influenced by a variety of regulatory entities. Southern Pacific Railroad will influence decisions on where railroad crossings will occur and whether the crossings are at grade or grade separated. Caltrans administers the State's highway system and has jurisdiction over state highway routing, placement of on- and off-ramps, and over and under crossings. The Planning Area is part of SCAG, which influences circulation decisions through its adopted Regional Mobility Plan. Circulation planning in the City is also subject to review by the Los Angeles County Transportation Commission, which functions as the Congestion Management Agency. Additionally, many of the north/south routes through the western portion of the Antelope Valley connect the cities of Lancaster and Palmdale and much of our public transit network is interconnected. Substantial coordination between the two cities and the other regulatory agencies is necessary in order to achieve a cohesive plan and to coordinate development within the region.

6. Jobs/Housing Imbalance

The City's current jobs/housing imbalance places a strain on the freeway and regional arterials, due to large numbers of commuters using these facilities. Among Palmdale residents who work, about 80 percent must commute to employment in the San Fernando Valley and Los Angeles metropolitan area. Over the past several years, the City has actively promoted economic development and the creation of jobs within the Planning Area. Continued improvement in the jobs/housing ratio is needed to mitigate commuter impacts on regional roadways and freeways.

7. New Technology

Given the long-term nature of the General Plan, new technology may develop which could alter the way in which people travel. Development of a high speed rail project

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linking downtown Los Angeles with the San Fernando Valley and Palmdale could significantly alter the commuting patterns of thousands of Palmdale residents. At some point during the build-out period of the General Plan, a rapid transit system could be developed to serve the needs of Palmdale residents. Advances in transportation technology such as these could alter the needs, goals and implementation programs of the City's Circulation Element.

8. Regional Impacts.

Land use decisions and transportation planning within the City of Palmdale will affect traffic and circulation in the cities of Lancaster and Santa Clarita, unincorporated county areas, and even the City of Los Angeles. In turn, land use and transportation decisions made by these jurisdictions will impact roadways in Palmdale. The need to assess and mitigate regional impacts (both to and from the City of Palmdale) will remain a challenge in implementing this Circulation Plan.



Environmental Resources Element

SECTION 1: INTRODUCTION

The Environmental Resources Element addresses the related issues of resource conservation and open space, and provides a basis to evaluate existing resources and plan for their protection. The goal of this Element is to improve the long-term quality of life for Palmdale residents through the rational management of natural resources and open space lands. The Element establishes policies concerning air, water, land open space, recreation, and energy resources that relate to their conservation, preservation, and managed use. The Element has been divided into four major issue areas: open space, conservation, outdoor amenities, and scenic highways.

Open space refers to land devoted to the conservation of on-site resources, resource management, or outdoor recreation areas kept undeveloped because of public health and safety concerns. In order for residents to continuously avail themselves of the aesthetic, recreational, and public health benefits of open space, the state mandates that cities include open space and conservation elements in their general plan. These elements shall provide a comprehensive management program for the environment.

Because the earth's resources are limited, there must be conservation and managed use of local resources. Water, soil, and minerals are valuable but finite resources. Their continued use can only be possible with conservation. The protection of animal and plant habitats, especially of endangered species, is also necessary to limit disruption of ecological cycles. Landforms, geologic features, historic and archaeological resources all contribute to the unique character of Palmdale.

Scenic highways provide the motorist with visual stimulation and passive recreation. Official scenic highways are designated by the State Scenic Highway Advisory Committee after plans have been adopted and submitted by the local jurisdiction. Highways eligible for such designation are listed in the Streets and Highways Code. Official county scenic highways are also designated by the State Scenic Highway Advisory Committee on application from the local jurisdiction. The Environmental Resources Element provides for the local designation of scenic highways and corridors and considers both official scenic highways and roadways not yet registered with the State.

The Environmental Resources Element is related to many of the other elements of the General Plan. This is due to the fact that most planning issues share components of more than one element. For example, policies relating to hillside development

Environmental Resources

standards appear in the Land Use, Safety, and Environmental Resources Elements, and will appear in the Community Design Element.

In summary, the Environmental Resources Element serves the following purposes:

- The Environmental Resources Element combines the state-mandated Open Space and Conservation Elements to partially fulfill the requirements of the California Surface Mining and Reclamation Act and the regulations in Section 65530 et seq. of the Government Code of the State of California.
- The Element informs the public of the goals and policies of the City concerning conservation, open space, outdoor recreation, and scenic highways. It also provides an implementation program to serve as a guide for the day-to-day operational decisions of City staff.
- The Element evaluates the state of environmental resources in the City, and identifies concerns and opportunities. It addresses the impacts of human activities on the environment and provides management measures to prevent the loss, destruction, and neglect of the area's significant resources.

SECTION 2: GOALS, OBJECTIVES AND POLICIES

GOAL ER1: Preserve significant natural and man-made open space areas that give Palmdale its distinct form and identity.

Objective ER1.1: Create and maintain an open space network throughout the City.

Policy ER1.1.1: Utilize a variety of features, including entry points to the City, landscaped arterial roadways, bikeways, equestrian paths, hiking trails, and park sites, to create an open space network.

Policy ER1.1.2: Provide for a network of open space by linking such areas wherever possible.

Policy ER1.1.3: Incorporate the citywide trail network into the regional trail system. In the interim--until the City's Parks, Recreation and Trails Element which fully identifies the citywide trail network is adopted--implement the North Los Angeles County Trails Plan network, as shown on the Overlay Map.

Policy ER1.1.4: Develop appropriate standards for development clustering and density transfer, in order to maintain areas of scenic open space throughout the Planning Area.

Policy ER1.1.5: Utilize the City's discretionary land use approval process to locate and retain areas for use as open space through dedication or other legal means. Develop criteria and guidelines to identify areas that should be so protected.

Policy ER1.1.6: Integrate natural hazard areas, such as floodways, seismic fault zones, and unstable soils, into the open space network in order to ensure public health, safety and welfare while preserving open space.

Policy ER1.1.7: Identify and utilize all available funding sources for acquisition and maintenance of open space areas for public benefit.

Policy ER1.1.8: Cooperate with private and public entities whose goals are to preserve natural and man-made open space. Develop criteria and guidelines to identify how to establish land trust open space locations.

Environmental Resources

Objective ER1.2: Protect scenic viewsheds both to and from the City of Palmdale.

Policy ER1.2.1: New development with the potential to substantially obscure or negatively alter the scenic backdrop to the City should be discouraged. "Scenic backdrop" refers to the significant ridgelines of the San Gabriels, the Sierra Pelona and the Ritter and Portal Ridges that form the City's skyline views.

Policy ER1.2.2: The following roadways are designated as City scenic highways. Apply special design standards for projects adjacent to these highways (as contained in the implementation section) in order to protect their scenic qualities.

- a. Barrel Springs Road
- b. Tierra Subida Avenue
- c. Sierra Highway, South of Avenue S
- d. Elizabeth Lake Road
- e. Pearblossom Highway
- f. Bouquet Canyon Road
- g. Godde Hill Road

GOAL ER2: Protect significant ecological resources and ecosystems, including, but not limited to, sensitive flora and fauna habitat areas.

Objective ER2.1: Identify and preserve to the greatest extent feasible significant ecological areas.

Policy ER2.1.1: The following broadly defined areas, shown on the Overlay Map and Exhibit ER-5, will be designated as a Significant Ecological Area (SEA) overlay on the General Plan Land Use Map: Big Rock Wash, Little Rock Wash, Ritter Ridge, Portal Ridge and Alpine Butte. Biological surveys should be performed to determine the nature and extent of their ecological significance prior to any approval of new developments within the overlay area. Any development permitted in these areas must consider significant environmental resources and preserve environmental resources to the extent feasible.

Policy ER2.1.2: Promote only compatible, and where appropriate, passive recreational uses in natural areas determined to be ecologically significant,

Environmental Resources

consistent with the particular needs and characteristics of each SEA, as determined by approved field observation reports.

Policy ER2.1.3: Solicit and utilize all available sources of local, regional, state and federal funds to acquire significant wetland areas, in order to minimize the disturbance and prevent damage from erosion, turbidity, siltation, a loss of wildlife and vegetation, or the destruction of the natural habitat.

Policy ER2.1.4: Preserve natural drainage courses and riparian areas where significant concentrations of ecological resources exist.

Policy ER2.1.5: Preserve and maintain significant Joshua tree woodlands and other significant habitat areas. Early in the review of development projects, the feasibility of preserving any significant vegetation present on-site should be examined.

Objective ER2.2: Ensure local compliance with State and Federal Endangered Species Acts.

Policy ER2.2.1: Cooperate with the preparation and the implementation of the West Mojave Coordinated Management Plan for protection of desert tortoise and Mohave ground squirrel.

GOAL ER3: Preserve designated natural hillsides and ridgelines in the Planning Area, to maintain the aesthetic character of the Antelope Valley.

Objective ER3.1: Establish a systematic approach to the management of land uses and development in hillside areas.

Policy ER3.1.1: Density of development shall respect and be reflective of the natural terrain, so that steeper sites are not developed to the same density/intensity as flatter sites.

Policy ER3.1.2: Adopt grading standards that respect the natural terrain, minimize earth moving activity, minimize visual effects of large cut and fill slopes, and provide for the preservation of unique and significant natural landforms where feasible.

Environmental Resources

Policy ER3.1.3: Require water-conserving revegetation of disturbed hillside areas, through standards for slope replanting and grading patterns that reduce manufactured slopes.

Policy ER3.1.4: Encourage density transfers where appropriate, in order to facilitate development in more suitable locations while retaining significant natural slopes and areas of environmental sensitivity as natural open space.

Policy ER3.1.5: Retain the integrity of the natural ridgelines of Ritter Ridge, Portal Ridge, Verde Ridge, the Ana Verde Hills, the Sierra Pelona Mountains, and the lower foothills of the San Gabriel Mountains.

GOAL ER4: Protect the quality and quantity of local water resources.

Objective ER4.1: Ensure that ground water supplies are recharged and remain free of contamination.

Policy ER4.1.1: Incorporate the use of flood control measures which maximize groundwater recharge and the use of floodways as native habitat.

Policy ER4.1.2: Restrict building coverage and total impervious area in the vicinity of natural recharge areas.

Policy ER4.1.3: Protect from pollutants or other materials which might degrade groundwater supplies, and enhance natural recharge areas such as the Little Rock and Big Rock Washes, and Amargosa and Anaverde Creeks, and ensure that no mineral resources recovery activities extend below the groundwater table.

Policy ER4.1.4: Require that all new commercial, industrial, and residential development connect to sanitary sewers as required by Policy PS2.2.4 of the Public Services Element.

Policy ER4.1.5: Cooperate with Los Angeles County Health Department and the Regional Water Quality Control Board in monitoring industrial and commercial uses utilizing hazardous or potentially polluting materials and fluids, to prevent their discharge into the groundwater aquifer.

Environmental Resources

Objective ER4.2: Minimize the impacts of urban development on groundwater supplies.

Policy ER4.2.1: Promote water conserving landscape techniques, through the use of native and drought tolerant plant species and landscape design standards.

Policy ER4.2.2: Utilize native plants or drought resistant planting materials and drip irrigation systems where feasible within the Landscape Assessment District areas.

Policy ER4.2.3: Require the use of water conserving appliances and plumbing fixtures in all new construction.

Policy ER4.2.4: Coordinate with local water agencies to monitor ground water levels, State water allocations and development approvals, to assure that development does not outpace long-term water availability. In the event applicable water agencies notify the City that ground water levels and State water allocations are insufficient to serve existing development or projected development, the City will determine whether it is appropriate to reevaluate this General Plan and take other appropriate actions, as permitted by law.

Objective ER4.3: Maintain and further the City's commitment to long-term water management within the Antelope Valley by promoting and encouraging planning for the conservation and managed use of water resources, including groundwater, imported water, and reclaimed water.

Policy ER4.3.1: Assess the feasibility of utilizing reclaimed water for landscape irrigation on a city-wide basis. Factors to be considered include the potential quantities of reclaimed water as determined by the Sanitation Districts, and costs associated with developing infrastructure and delivery systems to facilitate utilization. Within those areas in which it is determined to be feasible to utilize reclaimed water, consider establishment of an ordinance requiring installation of secondary water delivery systems to service landscaped areas.

Policy ER4.3.2: Work with local water purveyors to assess the potential for capturing local run-off and utilization of imported water (water banking) for

Environmental Resources

groundwater recharge within the Planning Area; through the land use planning process, ensure that important recharge areas are retained for that use.

Policy ER4.3.3: Continue to seek out long-range water management techniques as new technology is developed; promote implementation of systems which are feasible and appropriate to the Planning Area.

Policy ER4.3.4: Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns, within their homes and/or businesses.

Policy ER4.3.5: Participate in regional efforts to retain imported water allocations and seek out other sources as they become available.

GOAL ER5: Promote the attainment of state and federal air quality standards.

Objective ER5.1: Minimize local air pollution caused by vehicles.

Policy ER5.1.1: Reduce work-related trips through such means as promoting alternate work schedules, telecommuting, the use of alternative modes of transportation to the workplace and the creation of additional park and ride facilities.

Policy ER5.1.2: Reduce vehicle non-work trips through merchant transportation incentives and transit system improvements.

Policy ER5.1.3: Reduce vehicle emissions through maintaining and improving traffic flow as contained in the Circulation Element.

Policy ER5.1.4: As technology allows, reduce tailpipe emissions from City vehicles by replacing them with alternative fuel vehicles, and encourage reduction of emissions from private vehicles by requiring preferential parking for alternative fuel vehicles.

Policy ER5.1.5: To the extent practicable, require control of emissions from the future Palmdale Regional Airport.

Environmental Resources

Policy ER5.1.6: Expand the services of the existing dial-a-ride program resulting in reduced need for automobiles and parking by retired citizens.

Objective ER5.2: Minimize activities which generate dust, specifically particulates less than 10 microns in size (PM10).

Policy ER5.2.1: Reduce dust from unpaved roads and parking lots by requiring paving or vegetative stabilization of the unpaved areas; require that measures be taken at construction sites to prevent deposition of soil onto public rights-of-way.

Policy ER5.2.2: Encourage developers to maintain natural contours to the greatest degree possible, to eliminate the need for extensive land clearing, blasting, ground excavation, grading and cut and fill operations.

Policy ER5.2.3: Require erosion control measures on new development, including covering soil with straw mats or use of chemical soil and dust binders, followed by seeding and watering as soon as possible after grading to prevent fugitive dust.

Objective ER5.3: Reduce and/or eliminate unnecessary sources of air pollution.

Policy ER5.3.1: Promote the South Coast Air Quality Management District's (SCAQMD) efforts to eliminate emissions from such sources as excessive car dealership cold starts, excessive curb idling, emissions from advertising vehicles, and emissions from leaf blowers, among others, through assisting with implementation and enforcement of district programs once they are adopted.

Policy ER5.3.2: Work with Caltrans and the Los Angeles County Sheriff's Department to minimize nonrecurrent congestion which contributes emissions from vehicle idling, by designing effective street systems and identifying appropriate truck routes.

Policy ER5.3.3: Reduce reactive organic gas (ROG) and particulate emissions from building materials and construction methods, by promoting the use of nonsolvent-based, high-solid, or water-based coatings, and requiring compliance with all pertinent SCAQMD rules.

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Objective ER5.4: Minimize emissions of air toxins and pollutants which contribute to global warming and ozone depletion.

Policy ER5.4.1: Promote community awareness of the effects of global warming and ozone depleting gases, as well as methods to minimize the creation of those gases, by preparing and distributing educational materials, and cooperating with SCAQMD in establishing regional programs.

Policy ER5.4.2: Through the environmental review process for new development applications, ensure that emissions of air toxins as defined by South Coast Air Quality Management District are minimized.

Objective ER5.5: Reduce air pollution caused by energy consumption.

Policy ER5.5.1: Encourage energy conservation from all sectors of the community by promoting the use of energy efficient appliances, processes and equipment, and promoting energy audits of existing structures.

Policy ER5.5.2: Require local government, Palmdale citizens, and local businesses and industries to recycle, as mandated by state law, and to otherwise recycle to the extent possible.

Policy ER5.5.3: Require that new construction promote the use of solar energy systems by providing maximum solar access.

Objective ER5.6: Minimize emissions from indirect sources such as commercial, residential and recreational development.

Policy ER5.6.1: Ensure that new development reduces project-related vehicle miles traveled to the maximum extent provided by law.

Policy ER5.6.2: Promote the creation of high occupancy vehicle lanes on State Route 14.

Policy ER5.6.3: Reduce the number of people commuting to the Los Angeles metropolitan area by promoting actions to increase the area's jobs/housing balance.

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Policy ER5.6.4: Support the development of a rail system between Palmdale and Los Angeles.

GOAL ER6: Ensure an adequate supply of mineral resources to meet long-term regional construction needs.

Objective ER6.1: Recognize the regional importance of the classified and designated mineral deposits within Palmdale's Planning Area (as described in Special Report 143, Part V, Classification of Sand and Gravel Resource Areas, Saugus-Newhall Production-Consumption Region and Palmdale Production-Consumption Region, and Designation Report No. 6, Designation of Regionally Significant Construction Aggregate Resource Areas in the Saugus-Newhall and Palmdale Production-Consumption Regions and as shown on Exhibits ER-1B and ER-1C) and discourage encroachment of incompatible land uses which could threaten the long-term viability of sand and gravel mining and processing operations in the Little Rock Wash area.

Policy ER6.1.1: Establish a Mineral Resource Extraction (MRE) designation. Permitted uses within the MRE designation shall consist of mineral resource extraction (quarrying) and quarry related uses. Non-quarry related uses shall be permitted within the MRE area only when the Planning Commission has made the following findings:

- a. The proposed use is compatible with and will not be detrimental to existing and future quarrying operations; and
- b. Long-term regional aggregate needs have been evaluated and available resources will remain adequate to meet the future needs of the market region.

Policy ER6.1.2: Prohibit incompatible land uses within the MRE designation. Example of incompatible land uses include, but are not limited to, residential, some public facilities, intensive industrial and commercial.

Policy ER6.1.3: Require adequate buffering measures between land uses within the MRE designation and incompatible uses outside of, and adjacent to the MRE area.

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Policy ER6.1.4: The State designated Mineral Resource Areas within Palmdale's jurisdiction shall be included in the City's Mineral Resource Extraction (MRE) designation to the maximum extent feasible. In determining the boundaries of the MRE area, or in considering any proposed changes to these boundaries, the City shall weigh the following considerations:

- a. The short term and long term economic importance to the region of conserving and developing aggregate resources;
- b. The economic multiplier effect on industries, such as construction and trucking, derived from assuring a long-term low cost source of aggregate materials within the Palmdale Production-Consumption Region;
- c. The location of State Designated Resource Areas;
- d. The location of existing structures and projects under construction and the impact of quarrying operations on these uses;
- e. The location of previously approved (entitled) projects and the impact of quarrying operations on these uses; and,
- f. The location of property owned by entities not subject to regulation by the City.

Policy ER6.1.5: In order to assure the long term viability of present and future quarry operations, the boundaries of the City's MRE designation should be designed so as to minimize interface problems between future land uses within the MRE area and future land uses outside of the MRE area. The following physical issues should be considered in establishing the boundary for the MRE designation:

- a. Noise and dust generation from quarrying operations and from the transportation of aggregate materials from the quarry sites;
- b. Aesthetics/visual impacts;
- c. Access to future quarry sites;

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- d. Protection of Significant Ecological Areas;
- e. Protection of ground water recharge areas; and
- f. Probable trucking routes and their impact on the regional circulation system.

Objective ER6.2: Ensure that the MRE area located within the Little Rock Wash alluvial fan is comprehensively planned.

Policy ER6.2.1: Adopt a Specific Plan or equivalent comprehensive planning document for the Mineral Resource Extraction district associated with the Little Rock Wash.

Policy ER6.2.2: In the Little Rock Wash area, address environmental concerns related to:

- Ground water contamination;
- Sensitive Ecological Areas of flora and fauna;
- Performance standards related to dust and noise and their impacts on surrounding properties and uses;
- Interface between mining activities and surrounding uses;
- Aesthetics; and
- Public safety.

Policy ER6.2.3: Establish a reclamation plan for the entire area that indicates what the various properties will be used for when mining operations cease, what the target land use designation and zoning shall be for the reclaimed lands, and how the transition to new uses shall be implemented.

Policy ER6.2.4: The area-wide reclamation plan should analyze and plan for adequate areas for groundwater recharge.

Policy ER6.2.5: Address circulation to minimize impacts on the City's existing and planned network, and or adjacent properties.

Policy ER6.2.6: Address infrastructure for the area, including appropriate means of controlling the floodway and managing the flood plain.

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GOAL ER7: Protect historical and culturally significant resources which contribute to the community's sense of history.

Objective ER7.1: Promote the identification and preservation of historic structures, historic sites, archaeological sites, and paleontological resources in the City.

Policy ER7.1.1: Identify and recognize historic landmarks from Palmdale's past.

Policy ER7.1.2: Promote maintenance, rehabilitation, and appropriate reuse of identified landmarks where feasible.

Policy ER7.1.3: Require that new development protect significant historic, paleontological, or archaeological resources, or provide for other appropriate mitigation.

Policy ER7.1.4: Develop and maintain a cultural sensitivity map. Require special studies/surveys to be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as indicated on the sensitivity map.

Policy ER7.1.5: When human remains, suspected to be of Native American origin are discovered, cooperate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate disposition of the human remains and any associated grave goods.

Policy ER7.1.6: Cooperate with private and public entities whose goals are to protect and preserve historic landmarks and important cultural resources.

GOAL ER8: Avoid the premature conversion of agricultural lands to urban uses.

Objective ER8.1: Identify significant farm lands pursuant to the State of California Important Farmlands Inventory and provide for their preservation as an interim use within the Planning Area.

Policy ER8.1: Encourage the preservation of agricultural lands in non-urban areas and as an interim use where urban development is not anticipated for several years.

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Policy ER8.2: Preserve agricultural uses as a means of retaining aquifer recharge both naturally and through treated water sources.

SECTION 3: IMPLEMENTATION

Environmental resource management in the Planning Area will be accomplished through interdependent programs and standards. The implementation programs identified are discussed in detail below.

A. California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) (Division 13 of the Public Resources Code) was passed in 1970 to protect the quality of the environment. The City will continue to implement CEQA as it is amended from time to time, through adoption of City CEQA guidelines and procedures.

The program EIR for the City of Palmdale General Plan documents existing environmental conditions and provides an assessment of citywide and regional impacts expected to occur as development takes place under the General Plan. The EIR serves as the mechanism for evaluating proposed discretionary projects that may impact the area's resources and for providing appropriate mitigation measures. New implementation programs will be incorporated into the City's CEQA guidelines.

The General Plan EIR also contains a mitigation monitoring plan. In compliance with AB 3180 (Cortese), a mitigation monitoring plan must be adopted prior to project implementation. This document may be utilized to ensure that mitigation of project-specific impacts is undertaken in a timely manner. It also provides a feedback mechanism for determining the success of the City's CEQA guidelines and the effectiveness of mitigation programs.

B. Archaeological, Historical and Paleontologic Measures

Historical, archaeological, and paleontological resource information maps will be prepared for use by City staff to identify areas with a high potential for resource sensitivity. The maps shall be used to evaluate the need for cultural resource surveys prior to development.

Developments in areas which are likely to contain cultural resources will be required to perform surveys and submit reports. When resources are identified, appropriate testing and preservation, mitigation, or salvage will be required.

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C. Biological Measures

1. The City will require biological assessments and reports for projects in known or suspected natural habitat areas prior to project approval. These reports will be used to establish significant natural habitat areas and ecologically sensitive zones in order to prevent disturbance and degradation of these areas. Recommended mitigation measures as identified in the reports will be required to be implemented as development occurs.
2. The City will participate in a multi-jurisdictional habitat preservation plan for the West Mojave Desert area (West Mojave Coordinated Management Plan), and will implement the provisions of this Plan after adoption by the City Council.

D. Air Quality Measures

1. The City shall prepare an Air Quality Element, as recommended by the South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG), to more thoroughly address local air quality issues and local compliance with regional air quality attainment plans.
2. The City shall comply with the South Coast Air Quality Management District requirements to implement the Tier I, II and III control measures described in the South Coast Air Quality Management Plan (SCAQMP), to the extent these measures apply to Palmdale.
3. To reduce mobile source emissions the City will implement a trip reduction ordinance. The ordinance should consider the number of Vehicle Miles Travelled (VMT) estimated to be generated from each new development project in accordance with the requirements of SCAQMD, Los Angeles County Transportation Commission (LACTC) and other affected agencies.
4. Also, the City should support legislation that would provide tax incentives for developers to establish work centers in housing-rich Palmdale, and vanpool tax credit legislation which includes such provisions as granting tax exempt status to compensation received for specific ridesharing programs; allowing tax deductions for employees who rideshare; and special tax credits for electric vanpools and clean-fuel vans.

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5. To the extent feasible, the following measures shall be implemented to reduce emissions from Palmdale Airport (PMD):
 - a. Reduce vehicle miles travelled to Palmdale Regional Airport through an Airport Ground Access Program for airport employers and passengers;
 - b. Reduce emissions by using ground power systems that include centralized air conditioning systems, while aircraft are parked at terminal gates;
 - c. Encourage the Airport Operator and SCAQMD to have all carriers use only Stage III aircraft in scheduled fleets using PMD;
 - d. Recommend a "gate hold" procedure at PMD;
 - e. Advocate a design for high speed taxiways that most effectively reduces emissions and conserves fuel;
 - f. Implement an engine shut down program if the benefit in reduction of ROG and CO emissions and energy conservation exceeds the adverse impact of increased NOx emissions;
 - g. Develop procedures to reduce fuel use by ground support vehicles, and ultimately to rely completely on cleaner alternate fuels.
6. To reduce emissions from natural gas combustion and electricity generation, the City will incorporate the most energy-efficient design consistent with a reasonable rate of return when retrofitting existing facilities and equipment in City buildings. In addition, the City will develop a public information program on energy conservation and cooperate with utilities to encourage energy audits of existing structures, identifying levels of existing energy uses and potential conservation measures.
7. Also, the City will analyze the potential for the alternative use of any public facility, which is slated to be closed or consolidated with another facility, as a neighborhood work center; this policy should be communicated to affected agencies, such as the school board and library commission.

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8. Finally, the City will adopt appropriate ordinances relating to trip reduction, non-motorized transportation, employer rideshare and transit incentives, parking management, merchant transportation incentives, auto use restrictions, and truck routing to both achieve compliance with the South Coast Air Quality Management Plan and implement City programs and standards.

E. Parks, Recreation and Trails Element

Parks and recreation facilities will be developed according to a master plan as contained in the City's Parks, Recreation and Trails Element. The provision of parks and recreation areas in the Planning Area will ensure a full range of active and passive recreational activities to residents and visitors alike. The City's Parks, Recreation and Trails Element contains a complete description of existing parks and criteria for siting new parks in Palmdale.

F. Trail System

The City will ensure development and maintenance of a multi-purpose (equestrian, hiking, and bicycle) trail system throughout the Planning Area. The trail system will ultimately connect existing national forest trails to parks and recreation areas in the region. This system will provide an alternative means of travel to and through natural areas and along scenic roads. Plans and implementation measures for trail systems are contained in the Parks, Recreation and Trails Element. Until such time as the Parks, Recreation and Trails Element is adopted, the City will implement the North Los Angeles County Trails Plan; this network of trails is shown on the Overlay Map.

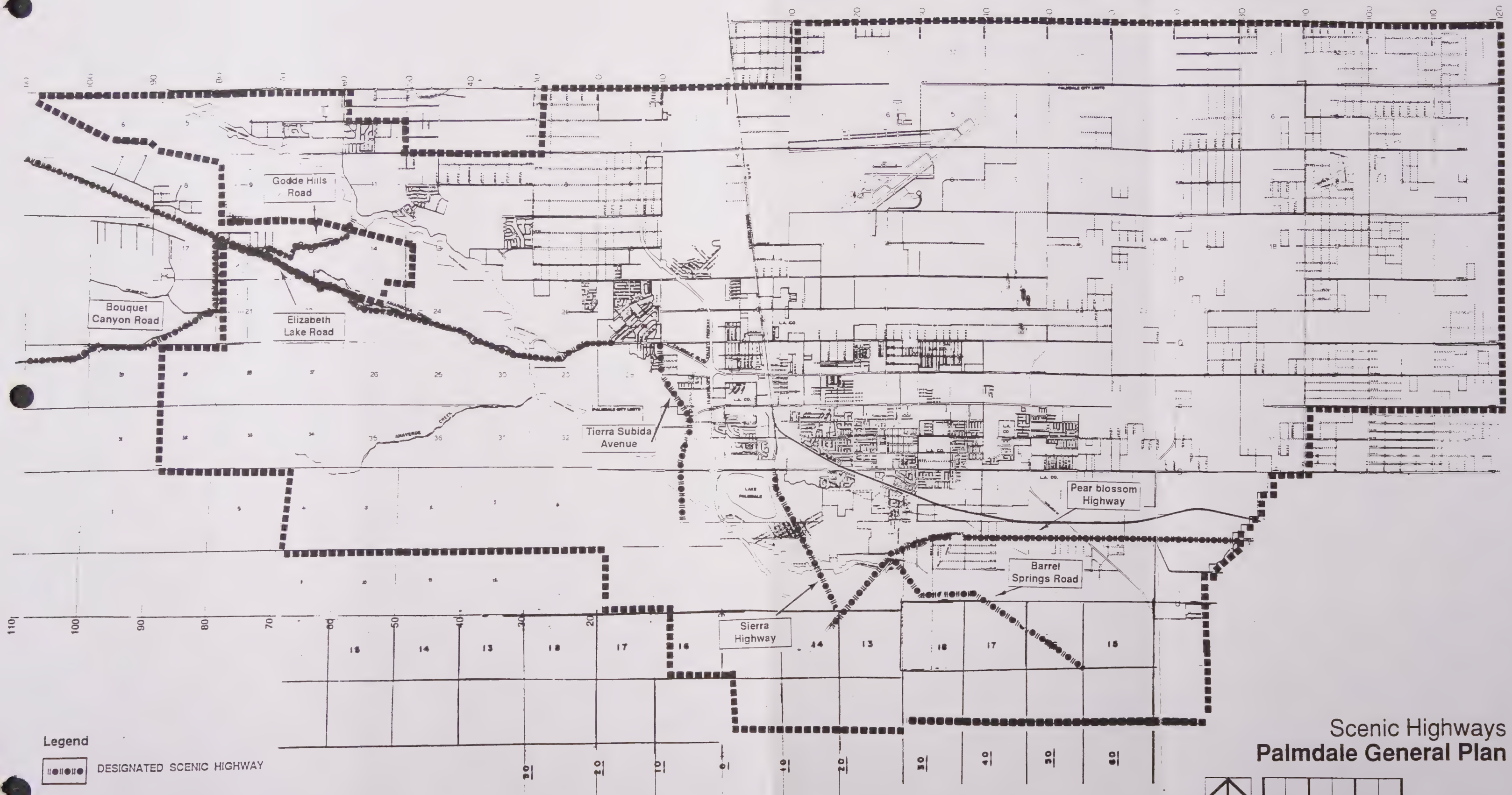
G. Scenic Roadway Designations

The City shall protect scenic highways in the Planning Area. Scenic highways and roads have been identified in Policy ER1.2.2 of Section 2. They include Barrel Springs Road, Tierra Subida Avenue, Sierra Highway (south of Avenue S), and Elizabeth Lake Road, Pearblossom Highway, Bouquet Canyon Road, and Godde Hill Road. These roadways possess scenic qualities that have provided outdoor recreation experience to travelers and hikers. Exhibit ER-1 shows the location of these locally significant scenic streets and highways.

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The City should apply to the State Scenic Highway Advisory Committee for State designation of these roadways. This designation could afford visitors the enjoyment of views along the routes and provide extra protection to this resource.

The City will establish a design criteria for designated scenic highways that requires specific design standards for nearby development. These standards could include the following: height limits to preserve view corridors, limits or standards for outdoor advertising and signs, maintenance of roadside landscaping, limits on grading activities along highways, and the prohibition of overhead utility rights-of-way along scenic highways. In addition, a visual impact analysis may be required for developments within the overlay zone in order to preserve the visual qualities of scenic routes.



H. Mining Standards

In accordance with the provisions of the Surface Mining and Reclamation Act (SMARA) and subsequent amendments, the City of Palmdale has adopted an ordinance implementing mineral resource management policies. Mining within designated aggregate resource areas requires approval of a conditional use permit (CUP) before operations begin. The CUP shall be granted for a period of time as specified by the Planning Commission with renewals approved by the Planning Commission. In addition, renewal of the CUP is dependent on the success of proposed mitigation measures for residual hazards. The ordinance also requires a reclamation plan for returning the site to reusable condition following cessation of mining operations. State environmental regulations require ongoing monitoring of operations to ensure adequate mitigation of adverse impacts.

The City has developed standards for mining activity in the Planning Area in conjunction with the Mineral Resource Extraction (MRE) land use designation (Exhibit LU-2). Mineral resource extraction is appropriate in these areas, as long as it complies with the following conditions:

1. Approval of a reclamation plan in compliance with the state Surface Mining and Reclamation Act (SMARA), as amended, and City regulations.
2. Standards for development in areas adjacent to the MRE designations require that all new residential, commercial or industrial development provide buffering from quarrying operations that will conform to policies contained in the General Plan relating to noise, dust control, traffic or other impacts identified through the environmental review process. Where the Mineral Resource Extraction (MRE) land use designation is adjacent to existing or approved but unbuilt development, the responsibility for buffering impacts of quarry operations shall be upon the quarry operator. Where the MRE designation is adjacent to vacant land which has no approvals for development, the responsibility for buffering shall be shared by the future developer of the vacant property. In all cases, concentrated noise generators shall require buffering from the boundaries of the MRE designation to mitigate noise impacts on adjacent uses.
3. One of the Mineral Resource Extraction area covers a major groundwater recharge area and there exists a potential for groundwater contamination; thus,

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mining is not permitted below the groundwater level or to a level as determined through environmental analysis.

4. Noise impacts must be minimized by ensuring that the noise level at the property line is 65 dBA CNEL or less, when noise-sensitive uses or designations abut the quarry.
5. Mining areas must be fenced with a 6-foot view obstructing fence, wall, or landscaped berm along public streets or adjacent to residential areas.
6. Use of asphalt and petroleum-based materials, or other operations which may impair groundwater quality, in the Mineral Resource Extraction designation are prohibited, unless substantial evidence is provided to demonstrate that such uses will not have significant impact on groundwater or other resources.
7. Safety measures for routine operations shall be established prior to permit approval.
8. As the Little Rock Wash MRE area may potentially contain sensitive ecological habitat, and has been indicated on the General Plan Land Use map as Significant Ecological Area (SEA) overlay zone, appropriate steps shall be taken to identify, and protect any significant flora and fauna.
9. All mining operations in the Little Rock Wash area shall incorporate flood plain management provisions into their operations.

I. Native Desert Vegetation Ordinance

The City has adopted Ordinance No. 952, referred to as the Native Desert Vegetation Ordinance. This ordinance is designed to preserve a number of specimen quality juniper and Joshua trees which add to community identity, and to encourage the use of native vegetation in new development landscaping. All landscaping for new developments must conform to the requirements set forth in the Native Desert Vegetation Ordinance. In keeping with the intent of this Ordinance, the City may require preservation of significant stands through use of the Specific Plan process or equivalent planning process, and through design review processes on individual projects.

J. Landscaping Standards

The City has adopted landscaping standards which address the following needs:

1. Reestablishment of compatible native plant materials on newly graded areas;
2. Landscaping of exposed slopes and graded areas for erosion control;
3. Water and energy conservation techniques, such as drip irrigation, drought tolerant species, and alluvial rockscape;
4. Use of fire resistant vegetation and fuel modification techniques; and
5. Use of drought-tolerant plants to help in conserving water.

The City's Landscape Architect will review landscape plans for all new development to ensure compliance with the City's landscape requirements. This process allows the City an opportunity to promote native vegetation and set guidelines for landscaping and irrigation. The City has developed a listing of recommended plant species for perimeter landscaping and for use in the landscaping of new development. In addition, the City has compiled a separate listing of representative plant species found in the western Mojave Valley for use in developing "native" landscaping plans. Both listings are available to the public in the City's Planning and Engineering Departments and will continue to be utilized to ensure compliance with City landscaping standards.

K. Hillside Ordinance

The City has developed a Hillside Ordinance to protect the hillsides from insensitive development. The ordinance contains standards which will apply to areas with a natural slope of 10 percent or more. Development standards for hillsides are further discussed in the implementation section of the Safety Element. In addition to safety benefits, these standards will help to preserve open space and visually prominent landforms.

L. Open Space and Conservation Plan

The City's Parks, Recreation and Trails Element will develop an open space and conservation plan to plan the acquisition and maintenance of vital open space areas.

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This plan will help coordinate efforts to provide open space and recreation opportunities to residents, as well as preserving sensitive habitats and species, where present. The Ritter Ridge, Portal Ridge, Little Rock Wash, Big Rock Wash and Alpine Butte areas, shown on the Overlay Map and Exhibit ER-5, should be evaluated to determine the nature and extent of any significant ecological areas, and an appropriate financing mechanism to acquire those areas of particular importance. All available regional, state and federal funding will be solicited in order to acquire targeted significant ecological areas. The plan should also include criteria to identify appropriate new open space areas and to evaluate potential additions to the open space network. Additionally, the City may require dedication of open space, when appropriate, as a part of the development review process.

M. Species of Special Concern

The City shall continue to promote the protection of sensitive, rare, threatened, and endangered species found in the Planning Area through biological surveys required as part of the CEQA review process. The City will coordinate with the California Department of Fish and Game and the U. S. Fish and Wildlife Service to determine the best means of providing protection. In addition, the City is participating in the preparation of the West Mojave Coordinated Management Plan, which will provide management prescriptions for desert tortoise and Mojave ground squirrel.

The City shall identify and inventory areas of significant sensitive ecological habitat and shall prohibit disturbance of these areas to the extent feasible.

The City shall establish preventative measures where sensitive ecological areas have been determined to occur adjacent to equestrian trails. These measures could include use of interpretive signage to discourage vandalism or relocation of the trail away from the sensitive zone.

N. Community Design Standards

The City will review proposed developments to ensure compliance with any future adopted Community Design Standards. The City's Community Design Standards will be developed to guide public and private decisions in the process of the City's physical development. The standards may encompass physical aspects such as architecture, landscaping, roadways, landmarks, signage, open space and views, and the overall image of the City in relationship to its surroundings. These standards will be fully

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described in the Community Design Element of the General Plan. They can be implemented through zoning, specific plans or development plan review.

O. Agreements with Other Entities

The City of Palmdale will pursue agreements with other jurisdictions or entities, such as local school districts, utility easement holders, and the County of Los Angeles to provide more recreational opportunities for Palmdale residents. These agreements can be formal contracts or memoranda of understanding and can help eliminate the duplication of services. Agreements can provide for public recreation on school grounds and allow for the joint use of other public and private facilities.

P. Development Fees/Park Land or Open Space Dedication

Based upon its adopted Parkland Ordinance, the City of Palmdale will require the dedication of parkland or the payment of a parks fee by new developments in the City. The fees or land must be used to provide new land for parks or to subsidize the acquisition and maintenance of parks. This measure ensures that residents of new developments will eventually have access to adequate parks and recreation facilities without overburdening the City's financial resources. Dedication may also be used to acquire open space areas. Fees and land dedication are further discussed in the Parks, Recreation and Trails Element.

Q. Park Needs Surveys

The Parks and Recreation Department will periodically assess the community's park needs and adjust park programs accordingly, by conducting surveys of park users to evaluate existing programs and types of park use (active, passive, etc.). Present and future park needs will be evaluated pursuant to the City's Parks, Recreation and Trails Element.

R. Groundwater Recharge Program

The City will cooperate with local water providers and flood control agencies to develop a groundwater recharge program. The City can contribute to this effort by ensuring that major recharge areas be kept undeveloped to aid in water recharge.

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S. Water Recycling and Reuse

The City should coordinate with Los Angeles County Sanitation District to investigate the potential for expanding water reuse programs. Treated wastewater is currently used to irrigate some agricultural areas growing non-food crops. With the growing population, supplies of treated water will increase. Treated wastewater might be used to irrigate roadside and commercial landscaping, in addition to agricultural lands, to help conserve Palmdale's limited fresh water resources. The City may offer incentives to agricultural, commercial, and residential developments that use recycled water for irrigation.

T. Master Drainage Plan

The City's Master Drainage Plan indicates natural drainage courses in Palmdale and other areas sensitive to flooding. Groundwater recharge areas are noted which could aid the City in developing water conservation programs. The City will actively pursue the construction of drainage facilities recommended in the plan and address development restrictions in floodplain areas. The City's Master Drainage Plan is discussed in the Public Services Element.

U. Land Use Element

The City shall review proposed developments for compliance with the Land Use Element. The Land Use Element outlines the desired pattern of development for Palmdale and its sphere of influence. This land use plan can work in conjunction with other City programs to guide development to an appropriate pace and pattern. Land use approvals for individual projects will provide consistency with general development, conservation, and open space plans.

V. Cultural Resources

The City will map all known historic, archaeological, and paleontological resources and ensure the protection of these resources. The City will review plans for development in potentially sensitive areas. Development in paleontologically and archaeologically sensitive areas where impacts cannot be mitigated will be discouraged.

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W. Circulation Element

The City shall adopt and implement a Transportation Demand Management Plan. Transportation Demand Management (TDM) plans can reduce the use of private automobiles in the Palmdale Planning Area. The implementation of ridesharing, vanpools, and other transportation programs can reduce automobile emissions and help improve local air quality. TDM plans are discussed in the Circulation Element.

X. Alternate Energy Sources

The City shall support programs designed to reduce energy consumption and to utilize alternative energy sources.

Y. Regional Coordination

The City shall coordinate with Los Angeles County, the City of Lancaster and the City of Santa Clarita in addressing issues which affect the Antelope Valley, such as traffic, open space, air pollution, and natural resource issues.

Z. Public Information

The Planning Department will disseminate public information on City development standards and guidelines relating to environmental resource protection.

SECTION 4: ISSUES AND OPPORTUNITIES

This Element of the Palmdale General Plan considers a wide range of issues, to ensure that future development in the City of Palmdale and its Planning Area is sensitive to the environment. This section of the Element describes existing conditions in the Planning Area and provides the supporting analysis that led to the recommended goals, policies, and implementation measures contained in previous sections. Additionally, more detailed information on each issue can be found in the program Environmental Impact Report for the General Plan.

A. The Environment

The City of Palmdale is located in the Antelope Valley, in the western portion of the Mojave Desert. The Planning Area is just north of Soledad Canyon, north of the San Gabriel Mountains, with sections of the Sierra Pelona Range bordering the Planning Area on the southwest. The Planning Area ranges in altitude from 2,450 feet to 2,700 feet with the surrounding mountains rising up to 4,000 feet above sea level. The topography varies from almost flat with occasional drainages and sand dunes on the valley floor to steep foothill and mountain areas on the south. The San Andreas Fault traverses the Planning Area parallel to and just north of the mountains. Junipers, Joshuas trees, and desert chaparral are found in scattered areas throughout the City. Natural drainage channels, including the Amargosa, and Anaverde Creek and Little Rock and Big Rock Washes run generally north and northeast across the Planning Area toward the Rosamond and Rogers dry lakes. The City is bounded on the north by the City of Lancaster. Rural unincorporated county areas characterized by a number of desert buttes extend eastward from the Planning Area.

The climate is characteristic of the southern Mojave Desert. The mountain ranges block cool, moist coastal air and create hot, dry summers and cold winters. Seasonal rains (thunderstorms) are common but creeks are dry during much of the year. Mean temperatures range from 18°F in January to 108°F in July, with a daily average range of 46° to 77°F. Annual rainfall ranges from 5 to 11 inches and occasional snow can be expected during winter.

Within the past few years, rapid population growth has been spurred by the availability of relatively affordable housing and proximity to major employment centers, as well as annexation. In turn, the housing boom has created a demand for retail goods and

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service providers. Development patterns are not concentric from the City center, rather they are generally irregular and dispersed. Existing development has generally followed an east/west pattern, extending from about 75th Street West to about 65th Street East (14 miles). This pattern will likely continue due to the northern and southern constraints to extension of the Planning Area boundaries in the future.

Relative to environmental resources, population growth means the expansion and intensification of human activity and ensuing development. The state of the natural environment changes with the advent of this development. Animal and plant life is disturbed, land forms may be changed, air quality can deteriorate, and water supply and natural resources may be depleted. Population growth and development in the Palmdale area has altered natural habitats, bringing in new forms of animal and plant life, and limiting access to underlying resources. These consequences could permanently modify the ecology of the area.

To ensure that ecological balance is maintained, most projects are required to assess their environmental impacts before approval and implementation. The City encourages development to the extent that harmful effects are mitigated. At times, however, development is incremental and the consequences to the environment may go undetected. The cumulative effects of many projects magnify environmental changes considered minor for one project, sometimes resulting in biological degradation. However, at that point, projects may be in place and mitigation measures no longer easily implemented. One purpose of this Element is to identify particularly valuable open space resources and plan for their preservation on a Citywide basis.

The location and amount of open space partly determines the quality of the environment. Natural and scenic landscapes provide psychological relief to daily stresses, aside from health and safety functions. Recreation promotes physical and mental health and, thus, should be encouraged and supported. However, the pressures for development compete with the need for open spaces. The economic returns promised by intensive land uses often overshadow the public health and safety benefits of undeveloped land, particularly for the individual land owner. Yet urbanization does not necessarily mean the destruction of environmental resources; only the need to recognize and plan for a balance between development and open space preservation.

The need for environmental resource management stems from these concerns. Through guidance, regulation, and support, the City intends to promote a balance between natural and man-made environments.

B. Environmental Issues

1. Open Space

Open space is generally defined as areas that are not built upon and may include both man-made and natural landscapes. The term refers to all land and water in the Planning Area that has value for recreation, conservation, historic, or scenic purposes, and is not covered by buildings or streets. Open space can separate or unify urban functions or areas, depending on its form and location. In addition, open space provides opportunities for resource production, enjoying scenic views, conservation of habitat and natural resources, outdoor recreation, public health and safety, and development management and control.

A wide variety of open spaces currently exist within the Planning Area. The Ritter Ridge area may contain unique geologic features and plant and animal resources. Mature and significant stands of native vegetation are also found in scattered undeveloped areas. There are remnants of Palmdale's agricultural past, such as almond orchards near Godde Hill. Lake Palmdale is a cold water reservoir that offers recreational uses to members of the Fin and Feather Club. Perhaps the largest area of open space in the Planning Area is the surrounding hills and mountains, which provide a scenic backdrop to Palmdale.

The undeveloped state of private lands does not ensure long term preservation of open space areas. If a look at Palmdale shows vast open areas, this condition is directly related to the amount of vacant land and existing low-density development, not because these areas are designated open space. Much of the land currently vacant is planned for development. Unless vacant land is designated as open space, it is likely that most of it may be developed during the life of this plan.

A comprehensive plan for open space will help to retain those areas most suited to open space and to focus development elsewhere. The plan is expected to deal with significant ecological areas, park sites, and scenic highway concerns, as well. When possible, open space corridors will be designed with the intention of preserving selected riparian areas, canyons, ravines, and ridge lines. The open space network should be

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designed in conjunction with equestrian and hiking trails and parks, as well as natural areas. Open space areas will help to retain natural biotic communities, which contribute to the natural beauty of the City.

Open space can successfully function under the multiple-use concept. For example, land that is designated as a flood water retention basin may be used for recreational purposes such as little league fields. This shows the relationship between the preservation of open space and other resource issues addressed in this Element.

Open space in the Planning Area must be designated early to avoid land cost escalation and competition for alternative land uses. Some areas, such as the earthquake rift zones, landslide or rockslide prone areas, and areas with flooding or subsidence problems have remained undeveloped to date because of the high cost of engineering needed to meet state and federal safety standards. However, as development increases and property values appreciate, it may become feasible to develop these hazard zones as well. Building technology is also improving, allowing construction in areas where it was previously not possible.

There are two primary ways that the City can preserve open space:

- Purchase or acquisition of specific parcels with characteristics that residents want to see preserved in open space.
- Requiring the design of all new development to include open space areas.

The purchase of vacant land for open space is limited by City funds available for such purposes. Although the City and most residents agree that one of the most attractive features of Palmdale has been the vast amount of open space, this open space is difficult to preserve by regulation of development design. In the past, open spaces provided by individual developments tended to be smaller, local parks which are scattered instead of being arranged as a part of an overall system of open spaces. However, on two large specific plans recently approved by the City, more than 7,000 acres was set aside as permanent, publicly accessible open space. This concept may be utilized by other large developments as well, particularly in hillside areas.

2. Conservation

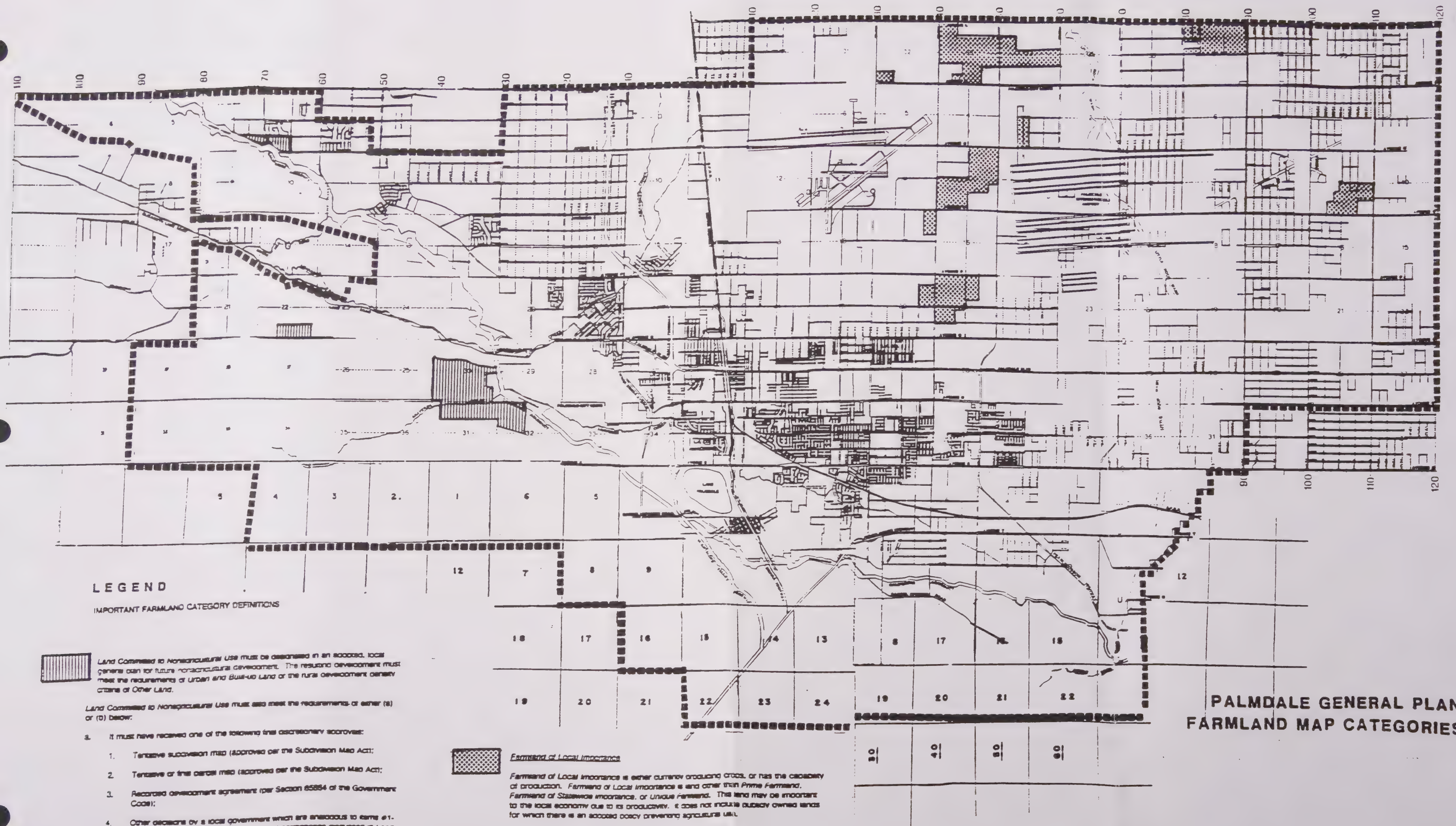
The need for the conservation of natural resources stems from their limited supply. Also, the benefits of conservation are not confined to the owners of the resource and the immediate vicinity. Indirect users and the community at large benefit from resource conservation and stand to lose from its depletion. Thus, it is in the interest of local government to promote conservation. Depending on the nature of the resource, conservation could include efficient use, managed production, or preservation.

Agricultural Resources

The decline of agriculture in Palmdale reflects that of agriculture throughout the Antelope Valley. Agricultural land use in the valley has diminished dramatically during the past 15 years. Currently, agricultural production in Palmdale is occurring only on a few large parcels within the Los Angeles Department of Airports future Regional Airport site. (See Exhibit ER-1A.) According to the Los Angeles Department of Airports and the Department of Agriculture, about 1560 acres are currently being used agriculturally. Crops consist of pistachio orchards, pine and ornamental trees, sod farms, and onion farms. This area is not classified by the State as prime agricultural land. Agricultural production from these parcels is not considered to be regionally significant, and is planned as an interim use until such time as the Regional Airport is developed. It is not the City's goal to preserve this area for permanent agricultural production.

Mineral Resources

Mineral resources include nonrenewable deposits of ore, stone, and earth materials. Gold, copper, lead, silver, zinc, and manganese deposits are believed to be scattered throughout the San Gabriel Mountains. The largest known resources of titanium in California are found in the western San Gabriel Mountains. The majority of these mines, however, have long been inactive.



**PALMDALE GENERAL PLAN
FARMLAND MAP CATEGORIES**

Environmental Resources

Nonmetallic minerals of commercially significant quantities in the study area are located in widely segregated areas. These include anorthosite, apatite, asbestos, barite, borates, feldspar, fluorspar, graphite, and mica. Although their commercial production may be doubtful, the presence of these materials should be considered, to the extent possible, in land use planning as their location becomes known and mapped.

Known and potential major deposits of sand and gravel, crushed rock, clay, limestone, and dolomite have also been identified in the Palmdale area by the State Division of Mines and Geology. These mineral resources are used primarily in construction, and statewide, rank second only to fuels in economic significance. Because transportation costs are high for these materials, their value depends on proximity to the user. The area's construction industries rely on local resources for aggregate supply in the region. Sand and gravel deposits are found extensively in flood plains and stream channels located north of the San Gabriel Mountains in the Little Rock and Big Rock Wash areas. While its importance is often overlooked, sand and gravel is an essential commodity in today's society. As a construction material, sand and gravel is a key component in products such as portland cement concrete, asphaltic concrete, railroad ballast, stucco, road base and fill. The availability of aggregate deposits and their proximity to markets are critical factors in the strength of this region's economy.

Urban expansion has been the major cause of a decline in the availability or access to significant sand and gravel resources. The loss of these deposits has occurred because land use planning decisions have often been made without reference to location and importance of these resources.

In an effort to remedy this problem, the State Surface Mining and Reclamation Act (SMARA) provides for a mineral lands inventory process which the State terms "Classification - Designation". The Department of Conservation, its Division of Mines and Geology, and the State Mining and Geology Board are the State agencies responsible for administering this process. The primary objective is to provide local agencies -- such as cities and counties -- with information on the location, need and importance of mineral resources within their jurisdiction. The second objective of this process is to assure that this information will be considered in local land use planning decisions. This second objective is implemented through the adoption of local general plan mineral resource management policies.

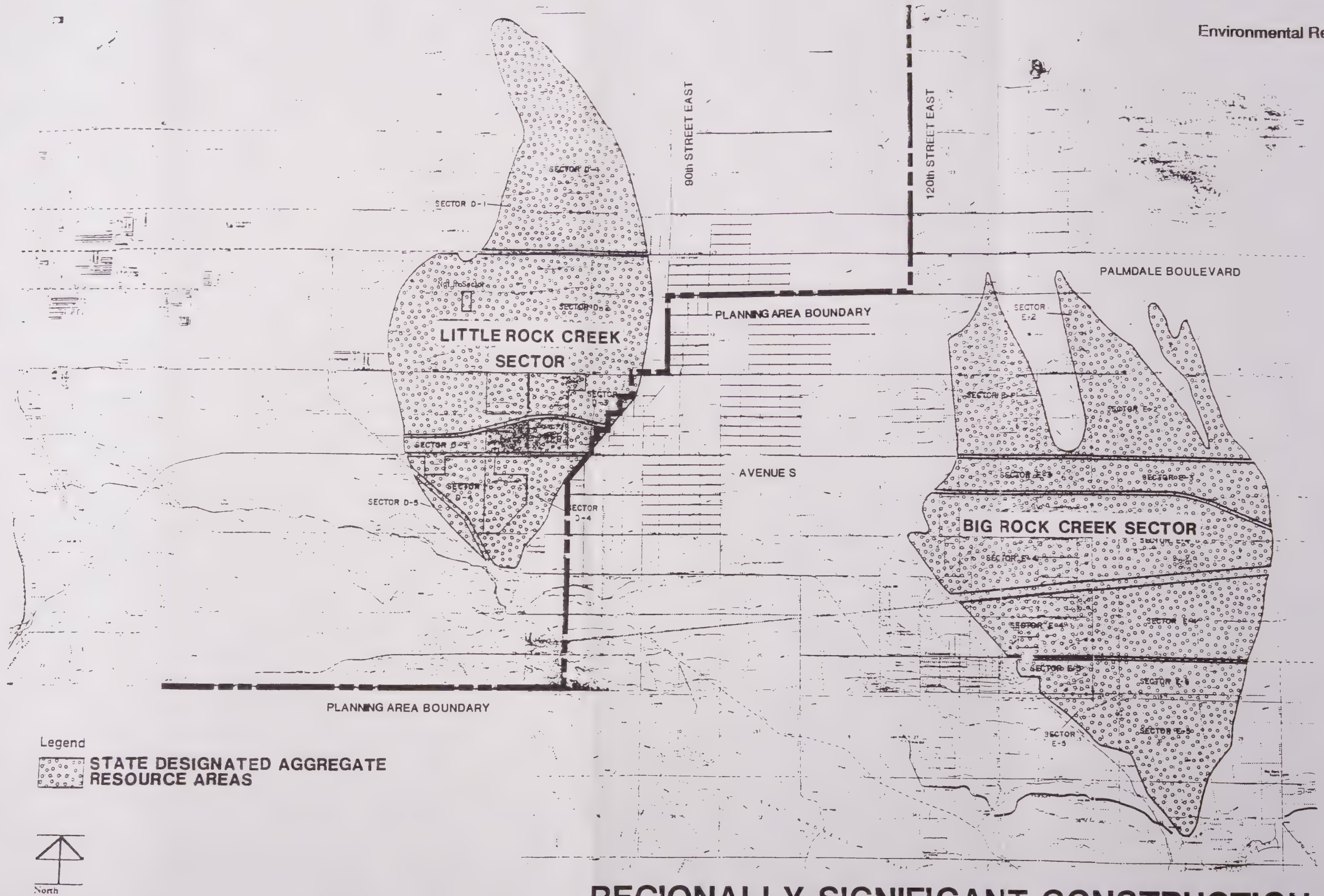
The State Division of Mines and Geology has classified urbanizing lands within the Palmdale Production-Consumption Region by Mineral Resource Zones (MRZs)

Environmental Resources

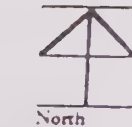
according to the presence or absence of significant sand, gravel, or stone deposits that are suitable as sources of Portland cement concrete (P.C.C.) grade aggregate (California Department of Conservation - California Division of Mines and Geology. 1987. Mineral Land Classification of the Greater Los Angeles Area. Special Report 143, Part V - Classification of Sand and Gravel Resource Areas, Saugus-Newhall and Palmdale Production-Consumption Regions). If a deposit contained more than \$5 million worth (in 1978 dollars) of suitable material that could be extracted and marketed profitably under present technologic conditions, or those which could be estimated to exist in the foreseeable future, the deposit was classified MRZ-2. Two MRZ-2 areas were classified within the Palmdale area. These two resource areas are associated with the Little Rock Wash, the Big Rock Wash, and their respective stream beds, flood plains and alluvial fans. Additionally, the State formally established the Palmdale Production-Consumption Region, consisting of much of the western Antelope Valley, including the Lancaster and Palmdale metropolitan areas. The Palmdale Production-Consumption Region encompasses an area of about 1,103 square miles and presently contains a population in excess of 150,000.

On January 3, 1987, the State designated two (MRZ-2) areas as "regionally significant" mineral resource areas within the Palmdale area (see Exhibit LU-2) (California Department of Conservation - CDMG and State Mining and Geology Board. Designation of Regionally Significant Construction Aggregate Resource Areas in the Saugus-Newhall and Palmdale Production-Consumption Regions. SMARA Designation Report No. 6. January, 1987). Sector D on the exhibit corresponds with the Little Rock Wash alluvial fan. The State has estimated that Sector D contains about 1000 million tons of aggregate resources. Sector E corresponds with the Big Rock Wash alluvial fan and lies almost entirely outside of Palmdale's Planning Area. (See Exhibit ER-1B and Exhibit ER-1C.) The State has estimated that the designated resource areas within the Palmdale Production-Consumption Region contain a total of about 2,155 million tons of resources. The State has estimated that consumption within the Palmdale Production-Consumption region within the next 50 years will be 122 million tons given present growth rates, etc. and barring unforeseen events such as a natural disaster.

Sand and Gravel mining is currently occurring along Avenue S, east of 70th Street East. The aggregate being extracted there is important to the construction industry in the Antelope Valley and greater Los Angeles area. In accordance with State policy, the



Legend
STATE DESIGNATED AGGREGATE
RESOURCE AREAS



SOURCE: State Mining and Geology Board, September, 1985.

ER-37A

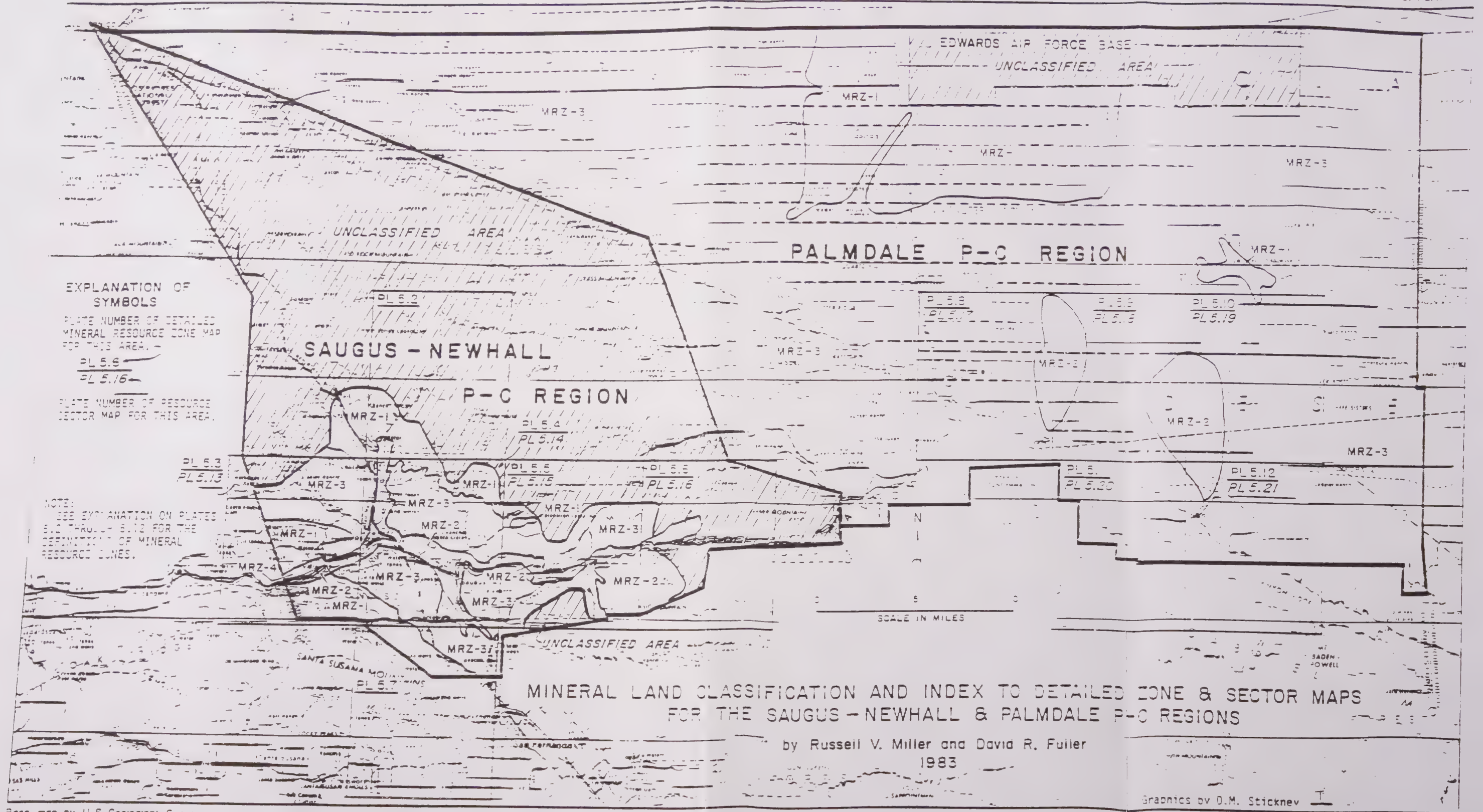
REGIONALLY SIGNIFICANT CONSTRUCTION AGGREGATE RESOURCE AREAS



DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST

(SPECIAL REPORT 143 PLATE 5.1)

SPECIAL REPORT 143, PLATE 5.1



ER-38B

STATE-CLASSIFIED MINERAL RESOURCE DEPOSITS

EXHIBIT ER-1C

Adopted by City Council
1/25/93

Environmental Resources

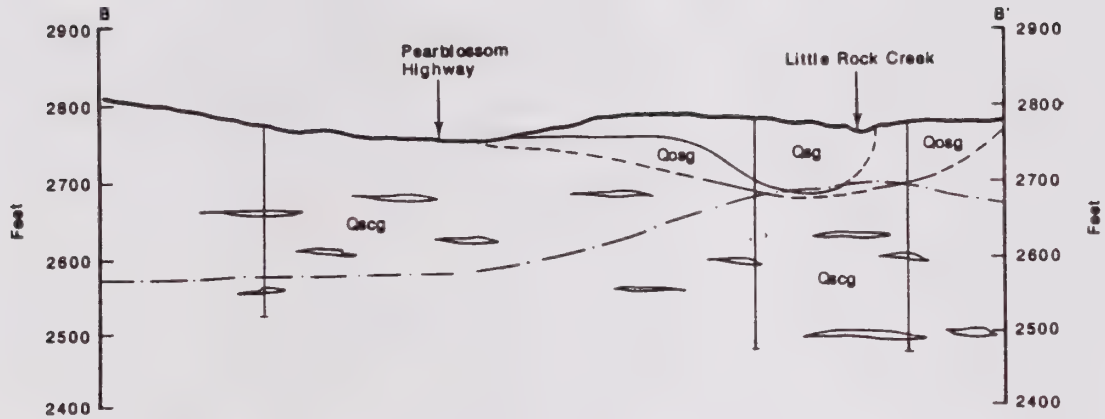
City of Palmdale has established policies which will assure continued access to these mineral resources, ensure that development occurring in the vicinity of mining operations is adequately buffered from any adverse effects of the mining operations, and that the extraction and processing of these mineral resources occurs without competition from other incompatible land uses. Within this designation, the mixing of raw sand and gravel materials with other processed ingredients for use throughout the region will be allowed, provided safeguards are in place to prevent contamination of the ground water or damage to sensitive ecological areas within the area. The Mineral Resource Extraction (MRE) district has been designated on the Land Use Map to recognize and permit extraction and processing of mineral resources. Generally, this designation covers the area outlined by the State as the MRZ-2 area with the exception of those lands that are either already developed or have already been approved for development in prior years (see Land Use Map). The area designated for mineral resource extraction on the Land Use Map contains approximately 600 million short tons of resource reserves.

Water Resources

The Antelope Valley is an inland basin within the southwestern Mojave Desert. The groundwater system consists of a principal (upper) and a deep (lower) aquifer covering 900 square miles separated vertically by lacustrine deposits (silts and clays deposited when an inland lake covered the valley). These aquifers were formed by the uplifting of the San Gabriel and Sierra Pelona Mountain Ranges, the Tehachapi Mountains, and the Soledad Mountain upland. Subsequent erosion resulted in the deposition of up to 2,000 feet of alluvium and sediments in the Mojave Basin. The principal aquifer overlies the lacustrine deposits and supplies all water pumped from wells in the Antelope Valley. The deep aquifer underlies the deposits (see Exhibits ER-2 and ER-3). Water moves downward from the principal aquifer to the deep aquifer on the western and southern limits of the lacustrine deposits (Durbin 1978). Upward movement from the deep aquifer to the principal aquifer occurs in areas of extensive pumping of groundwater.

Older alluvium deposits consist of silt, sand, gravel, and boulders characterized by their ability to store and yield water. The complex interbedding, frequently found at depths

Environmental Resources



Legend

	Sand and Gravel
	Predominantly Sand and Gravel
	Predominantly Sand with Lenses of Clay and Gravel
	Contact: Dashed Where Inferred, Solid Where Conjectured
	Water table
	Drill Hole

NOTES:

- 1) Geology taken from: Ponti, D.J., Burke, D.B., 1980, Map Showing Quaternary Geology of the Eastern Antelope Valley and Vicinity, California: U.S. Geology Survey, Open File Report 80-1084
- 2) Water Table Data Obtained From Well Log Information, Aggregate Plant Information, and Visual Inspection.
- 3) Refer to Exhibit ER-2 for Location of Section Line.

Source: DMG, SMARA Report No. 6

March 1990
VERTICAL
EXAGGERATION 20 - 1

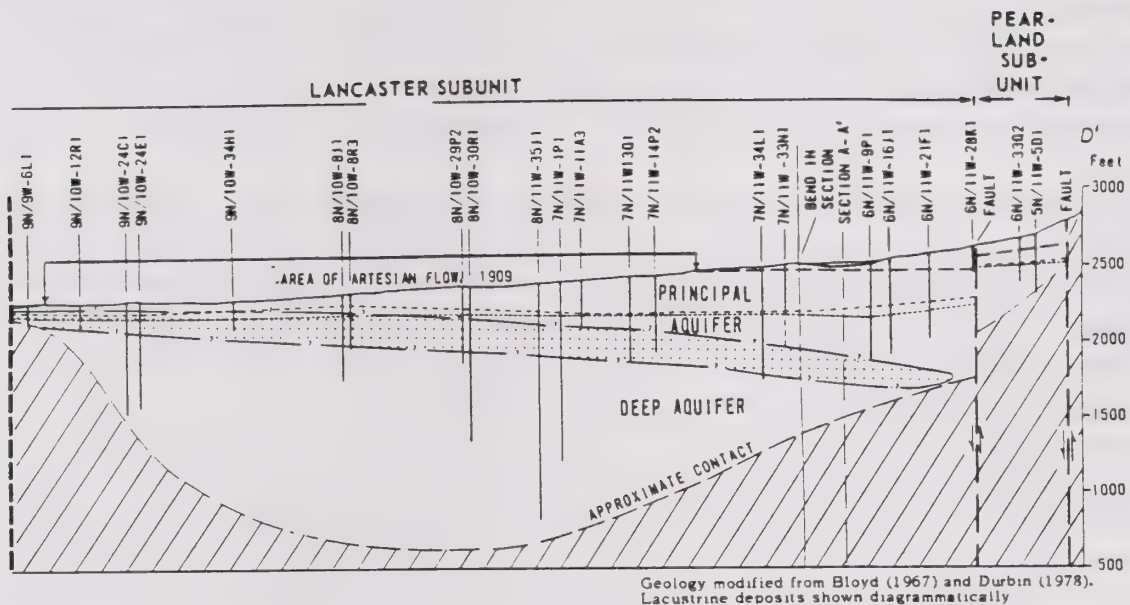


EXHIBIT ER-2

Generalized Geologic Cross-section of Littlerock Creek Fan Palmdale General Plan

Adopted by City Council
1/25/93

ER-40



Legend



UNCONSOLIDATED DEPOSITS
LACUSTRINE DEPOSITS
CONSOLIDATED ROCKS



FAULT—Approximately located; arrows indicate direction of relative vertical movement



WELL--Dashed where perforated



WATER LEVEL, 1909



WATER LEVEL, 1964



WATER LEVEL, 1982

Source: United States Geological Survey, Geohydrology of the Antelope Valley Area, California, and Design for a Ground-Water-Quality Monitoring Network, 1987.

Cross Section of Lancaster Subunit Palmdale General Plan

EXHIBIT ER-3

Environmental Resources

greater than 100 feet, has been exposed in the west Antelope Valley. In certain areas, the deposition of sediments has resulted in impervious layers which block the downward movement of irrigation and recharge toward the aquifers. This impervious sedimentary layer has resulted in a temporary perched water condition around Lancaster, where irrigation-recharge water is retained above the water table.

Younger alluvium deposits make up the alluvial fans found at the base of the San Gabriel Mountains. These deposits are up to 100 feet thick but can be found at lesser thickness, as far into the basin as the "playas". They act as conveyors of water, but generally do not store a significant quantity. Silts and clays that are not deposited in the alluvial fans are transported to lower sections of the basin by infrequent major storms. The result of this deposition is the dry lake bed, or "playa".

The Mojave Basin consists of the Fremont and the Lancaster sub-basins, which are divided into 15 sub-units. Sub-units have been isolated by differences in groundwater elevation (caused by faults or consolidated rock masses) and in some instances, by convenient, arbitrary boundaries. The Lancaster sub-basin contains six sub-units that are wholly or partly in Los Angeles County.

The Lancaster sub-unit, largest of the sub-units, supplies the majority of groundwater to the Planning Area. Groundwater movement is generally northeasterly from the foothills of the San Gabriel and Sierra Pelona Mountains towards the Rosamond and Rodgers Dry Lakes. Distorted movement occurs due to pumping depressions found at Antelope Acres, Hi Vista, Quartz Hill, and Edwards Air Force Base. Water levels in these areas have been observed to decline as much as 80 feet from 1952 to 1980; however, available studies on groundwater supply within the Antelope Valley contain conflicting information on groundwater levels. The cities of Palmdale and Lancaster, Los Angeles County, and local water purveyors are undertaking a comprehensive groundwater study which will further clarify this issue.

Perched groundwater often occurs at depths of less than 50 feet and may approach depths of less than 25 feet after heavy rains or intensive irrigation. A perched condition occurred extensively in the Lancaster area due to the presence of an alluvium-filled lake bed. At one time, this condition resulted in artesian water in Lancaster. Due to extensive pumping, however, artesian wells no longer occur.

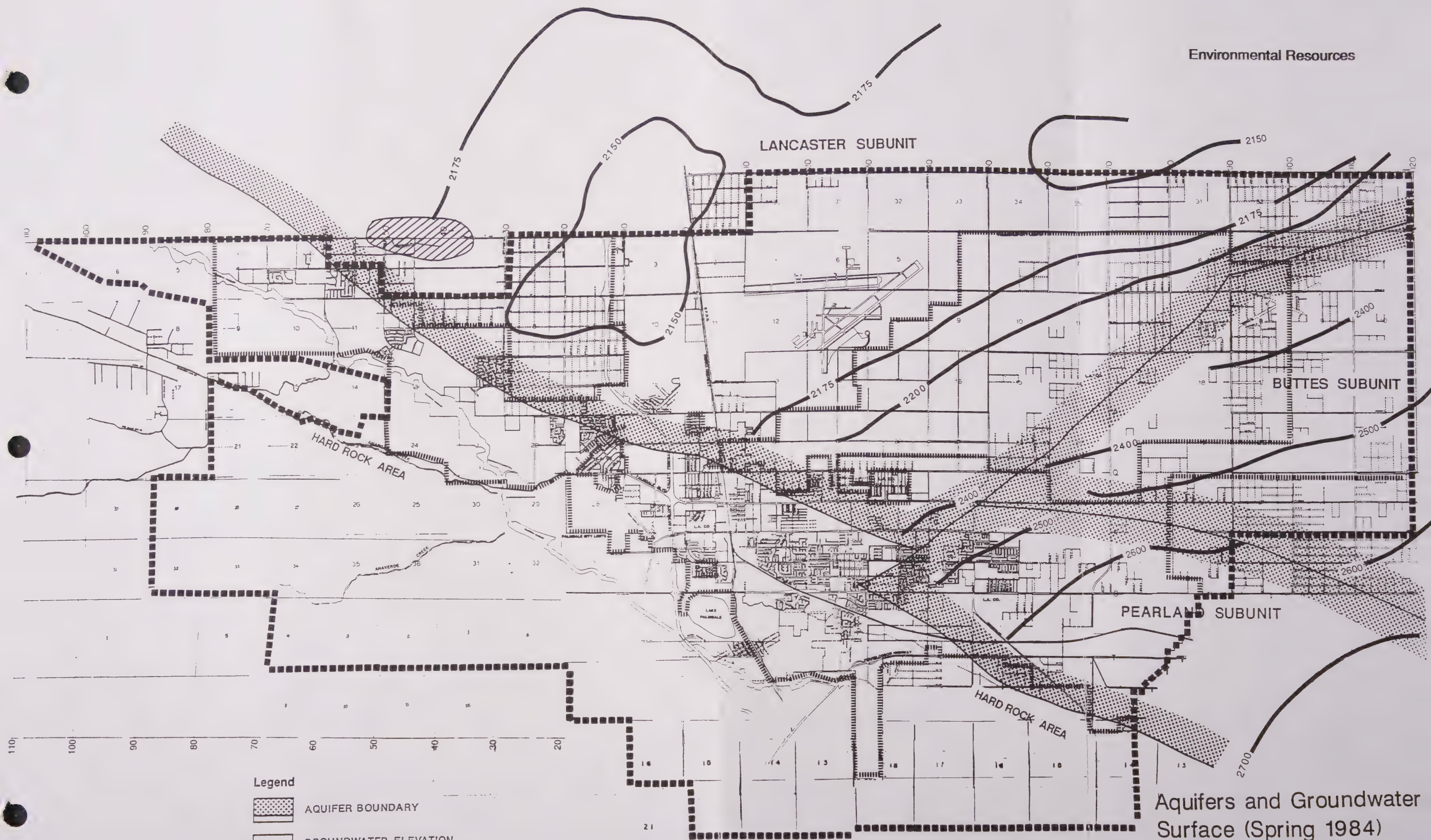
Environmental Resources

A second subunit, referred to as the Pearland sub-unit, is located along the base of the San Gabriel Mountains extending from Palmdale to Llano, with groundwater movement from southeast to northwest toward the Lancaster sub-unit. There are no known pumping depressions or perched conditions. Water is from 100 to 250 feet below the surface.

The Buttes sub-unit is north of the Pearland sub-unit. Groundwater in the unit moves northwest into the Lancaster sub-unit. Depth to water ranges from 50 to 250 feet. Data from 1965 to 1982 show declines in water level of as much as 50 feet over this period. Exhibit ER-4 shows the aquifer boundary and groundwater elevations during the spring of 1984. The contours indicate the flow of groundwater within the aquifer. Groundwater in the Buttes and Pearland sub-units migrate generally northwest toward the north-central part of the Lancaster sub-basin. On the southern part of the Planning Area are areas which are made up of consolidated bedrock that contain limited groundwater. There are few wells in these areas and no data on water levels has been collected. Because these areas are at a relatively higher elevation, they are sources of recharge to the Lancaster sub-unit.

The chemical quality of the groundwater in the Mojave Basin is generally satisfactory for domestic use and irrigation, as well as for most commercial and industrial uses. Total dissolved solids range from 200 to 800 milligrams per liter, with hardness as high as 1950 milligrams per liter near Rogers Dry Lake. Although the present quality is satisfactory, there is a trend toward poorer groundwater quality, due to urban runoff, septic tank failures, declining water tables, and the perched condition in Lancaster.

The Antelope Valley is not part of the larger county recharge area. The surrounding mountains funnel water towards the valley floor, thus providing the valley with a self-contained water cycle. The total recharge is the quantity of water that goes back to the underground basin or water source. Natural recharge of groundwater in the area is through the percolation of surface water. The percolation of storm runoff in the alluvial fans of the Amargosa and Anaverde Creeks, and Big Rock and Little Rock Washes provides recharge to the Lancaster sub-basin. Recharge rates in the area are subject to the fluctuation of winter rains. Occasional severe storms result in high runoff volumes that flow across the valley floor on impervious soils and are lost to evapotranspiration. The Little Rock and Lake Palmdale Reservoirs have been constructed to conserve a portion of this excess runoff.



- Legend**
- AQUIFER BOUNDARY
 - GROUNDWATER ELEVATION IN FEET ABOVE SEA LEVEL
 - CONSOLIDATED ROCK (NOT INCLUDED IN SUBUNIT)

ER-44

Aquifers and Groundwater Surface (Spring 1984)
Palmdale General Plan

Adopted by City Council 1/25/93 **EXHIBIT ER-4**

Environmental Resources

Overdrafting or pumping in excess of the recharge is prevalent in the Antelope Valley. Groundwater wells serve 80 percent of Palmdale's water needs and the California Aqueduct provides the remaining 20 percent. Groundwater recharge through the ground seepage of rainwater, however, is limited to an average of 9 inches of annual rainfall (although local rainfall only averages 5.15 inches annually, rainfall in the higher portions of the watershed is greater). With evaporation, the actual amount of water that reaches the basins by percolation is even less.

The continued reliance on groundwater to meet current and increasing demands for water due to rapid urbanization in the Valley has lowered the water table continuously. Rates of decline ranging from 1-foot per year in non-pumping areas to 12 feet per year in existing pumping depression drawdowns are not uncommon during the summer pumping season. Although no current data are available, USGS estimates a 200 foot decline in the water table in the last 60 years. Some water districts serving the Planning Area have reported 6 foot declines per year in their wells. To counteract overdrafting, the Los Angeles County Department of Public Works has established recharge programs in the region. In 1987-88, 2,927.1 acre feet of local water was spread in the Big Rock area to reduce the groundwater overdraft. Still, groundwater levels have declined steadily in the Lancaster Basin.

Although Palmdale is considered dry desert land, there are surface water sources in the area. Local streams are formed from rain and melting snow on the mountains. Rain and snow, in the form of run-off, pass through canyon streams and into the valley. The Amargosa and Anaverde Creeks, and Little Rock Wash are not perennial streams. Surface flows occur only during occasional storms. Sheet wash is common over flat areas as new water ways and channels are made when a storm is unusually heavy. Water ponds are found in winter, but dry up in summer due to evaporation. The Lake Palmdale and the Little Rock Reservoirs serve as runoff catchment and storage areas to help meet local water needs. They provide recreational opportunities to the public as well. Surface waters in the Planning Area serve as biological habitats, recreational resources, and a flood hazard.

Environmental Resources

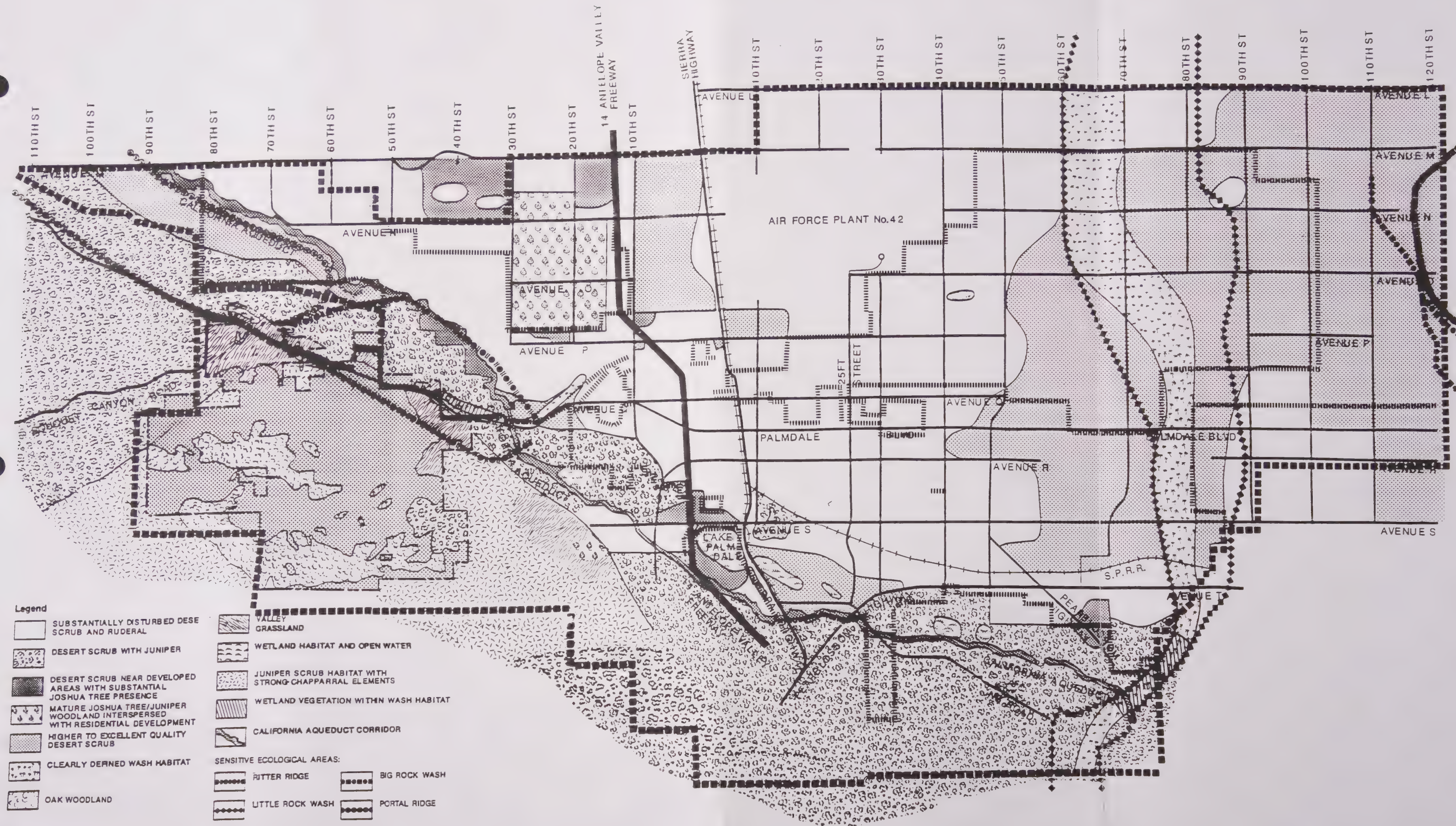
Localized flooding in Palmdale occurs occasionally due to the runoff velocity from the steep slopes. The high velocity does not allow substantial ground seepage and causes intermittent floods in the flat lands. The velocity also makes the runoff erosive and hazardous. Developed areas and some areas with impervious soils experience increased runoff which overflow existing flood control facilities. This condition has raised concerns for public health and safety.

Some areas in Palmdale have been developed using individual septic systems for each home rather than being connected to a public sewer system. Septic systems are still used in the non-urbanized portions of the Planning Area and in some of the developed county island areas. Septic systems must be maintained in order to avoid contamination of the water in surrounding areas. Installation of an adequate public sewer system may be necessary in order to preserve the quality of the groundwater resource.

Biological Resources

The biological composition of the Palmdale area presents a transition zone from montane plant communities to communities more commonly found in desert conditions (see Exhibit ER-5). Naturally occurring wetlands in the area are either associated with the existing stream courses of the Amargosa and Anaverde Creeks, the Little Rock and Big Rock Washes, or upwelling groundwater along the San Andreas fault rift zone. For example, the wetlands near Lake Palmdale were caused because the San Andreas Fault interrupts underground water flow, diverting water to the surface.

Vegetation in the Planning Area consists of six plant communities: desert scrub, junipers/Joshua tree woodland, ruderal, chaparral, oak woodlands, and riparian. Desert scrub consists of widely-spaced evergreen and deciduous scrubs occupying gentle and steep slopes that have gravelly to sandy soils. Sparse annual grasses and herbaceous species grow in the understory. The junipers/Joshua tree woodland areas feature California junipers and Joshua trees 10 to 15 feet in height and accompanied by a diverse flora. Junipers are found on higher ground and Joshua trees on north-facing slopes and the lower plains. Rapid development in the Palmdale area has raised concerns about the destruction of large numbers of Joshua trees.



ER-47

Area Vegetation Palmdale General Plan

Adopted by City Council
1/25/93

EXHIBIT ER-5

Environmental Resources

Ruderal communities are composed of weedy species on areas with loose soils, high temperatures, intense light, and low moisture. Abandoned agricultural fields and over-grazed desert scrub areas support ruderal plant species. Chaparral plants can be found on dry, hot slopes with thin and rocky soil. These woody, thick-leaved shrubs, 4 to 8 feet in height, are adaptive to low moisture and fire. They can be found on the slopes of the Sierra Pelona Mountains, integrated with the junipers and desert scrub communities.

Oak woodlands are found in the Ritter Ranch area on higher north-facing slopes. They are relatively dense and plant species diversity is high. The woodlands are dominated by blue oaks, canyon live oaks, and desert scrub oaks. Understory plants are predominantly shrubs associated with chaparral communities.

Riparian plant communities occur around drainage and low areas. Desert alluvial wash, desert olive arroyo/canyon woodland, willow and cottonwood woodlands, and freshwater alkali marsh are the major types of riparian communities in the Planning Area.

Wildlife in Palmdale includes a variety of native and introduced species. Amphibians are seasonally abundant in willow and cottonwood woodlands and freshwater marsh habitats. Reptiles, small mammals, and a number of bird species also occur in the Planning Area. Several sensitive animal species may be present in the area as indicated by their preferred habitats. These include the Mohave ground squirrel, desert tortoise, pale big-eared bat, white-eared pocket mouse, Le Conte's thrasher, sharp-shinned hawk, Cooper's hawk, golden eagle, prairie falcon, and, less commonly, the burrowing owl, tri-colored blackbird, long-eared owl, northern harrier, black-shouldered kite, American badger, and San Diego horned lizard.

Los Angeles County has identified five sensitive ecological areas (SEA) in the Planning Area (see Exhibit ER-5). One is Little Rock Wash, which runs from the San Gabriel Mountains to the Mojave Desert. It contains shadescale scrub, creosote bush scrub and desert riparian habitats and provides a nesting habitat for birds and a variety of mammals. Little Rock Wash supports diverse wildlife, serves as a migration corridor, and helps in the seed dispersal of desert plants.

Environmental Resources

Another SEA is Ritter Ridge, found between the Sierra Pelona foothills and the Antelope Valley. Ritter Ridge has a mix of Joshua trees and California junipers on the northern slopes; creosote bush scrub in the desert floor; and desert chaparral on the southern slopes. The area is a refuge for migratory birds and a habitat of 97 vertebrate species. The combination of desert and foothill plant species makes it a valuable ecological area.

The third SEA is Portal Ridge, which is northwest of Ritter Ridge. The area is relatively large, supporting diverse plant species from both desert and montane types. Portal Ridge provides an excellent resource for educational and scientific study.

Another sensitive ecological area is the Alpine Butte. Although it is largely located outside the Planning Area, a portion covers the easternmost area between Avenues M and P. The butte has sandy and rocky habitats with Joshua trees and creosote bush scrubs. Birds roost and nest in the butte and large mammals forage and use the site for denning. Presence of the Mojave ground squirrel, an endangered species, is possible at the butte.

The fifth sensitive ecological area is Big Rock Wash, just south of Alpine Butte and also largely outside the Planning Area. Like Little Rock Wash, it supports a variety of birds and mammals, serves as a migration corridor, and helps maintain the plant and animal diversity of the region.

The native plants and wildlife of the Antelope Valley have adapted to the arid climate and quick-draining, sandy soils. However, the expanding human settlement of the region has upset this natural balance. Development has resulted in replacement of the existing desert species with landscaping materials not native to the region that require regular watering to survive. Development has also blocked access to and eliminated foraging and nesting areas, and introduced air and water pollution that can adversely affect habitat quality. Past development patterns have created habitat "islands", isolating populations of species, thereby reducing their local long-term viability.

The landscaping style prevalent in the United States is based on British tastes and climate--a cool region with plentiful rainfall. In order to maintain the green lawns and shrubbery, irrigation is necessary. Excessive watering literally drowns native plants. However, alternative landscape styles from drier climates are not common in the United States--even in drier regions--and as a result may be more expensive to install and less

Environmental Resources

attractive to buyers. Public education and design assistance about drought tolerant and native landscaping is needed.

State and federal environmental protection laws require the review of individual projects to mitigate their potential impacts on existing biological resources. Two approaches are typically chosen:

- Attempt to preserve significant natural features and incorporate them in the proposed development. (This approach usually fails because of the different cultural requirements of the native as opposed to the introduced species.)
- Preservation of significant resources in "open space area" where development is restricted. (This approach results in islands of "undisturbed" areas that are not connected in a natural system as they were previously, and are frequently subject to vandalism or intrusion of urban activities, such as off-road vehicle use.)

These approaches can only succeed when there is an overall approach to development that emphasizes native, drought-tolerant landscaping and the establishment and protection of a system of natural open space areas in the City.

Cultural Resources

Cultural resources in Palmdale are derived from the rich and colorful history of the Antelope Valley. Evidence from the Barrel Springs site dates human occupation of the Palmdale area back 5,000 years before present (Love 1989:15). Cultural groups known to have occupied the area in and around the Antelope Valley in late prehistoric and early historic times include the Kitanemuk, Kawaiisu, Tatavium and Serrano/Vanyume.

The amount of existing cultural resources directly determines the extent of conservation that can be realized. While a number of archaeological, historical, and paleontological sites have been identified, the Planning Area is largely undeveloped and, for the most part, has not been surveyed for cultural resources. Resources are most often discovered during the environmental assessment of a proposed development project. In the last few years, rapid urbanization has resulted in an increased number of site surveys for these resources and a substantial number of newly identified cultural resources.

Environmental Resources

Existing state laws dealing with the preservation of archaeological, historical, and paleontological resources can ensure that identified cultural resources are preserved or investigated and mitigated through prudent and acceptable means. Public awareness and involvement often act as catalysts for aggressive resource preservation as historical and archaeological organizations become vanguards of the community's cultural resources.

The conservation of the area's cultural resources must be promoted by increasing the appreciation of residents for the valley's history. Public awareness programs and conservation ordinances will help bring about community pride and identity.

Historical Resources

A listing of potential historic structures has been compiled by the Antelope Valley Historical Society. Table ER-1 provides the listing and Exhibit ER-6 shows their general location. The list is based solely on the structure's existence for at least 50 years. Historical significance should not be inferred from this listing until such time as these (and perhaps other) structures are evaluated to determine their importance. In addition to age, the following factors should be considered when evaluating a structure's significance:

1. Architectural features unique to the region, such as:
 - a. Outstanding example within the region of an architectural style or of a particular architect's work.
 - b. Use of construction techniques or materials unique to the region.
2. Importance of the structure in the history of Palmdale.
3. Existing or restorable condition of the structure.
4. Physical and economic feasibility of possible relocation.
5. Physical and economic feasibility of possible restoration.
6. Potential reuse for the structure following restoration/relocation.

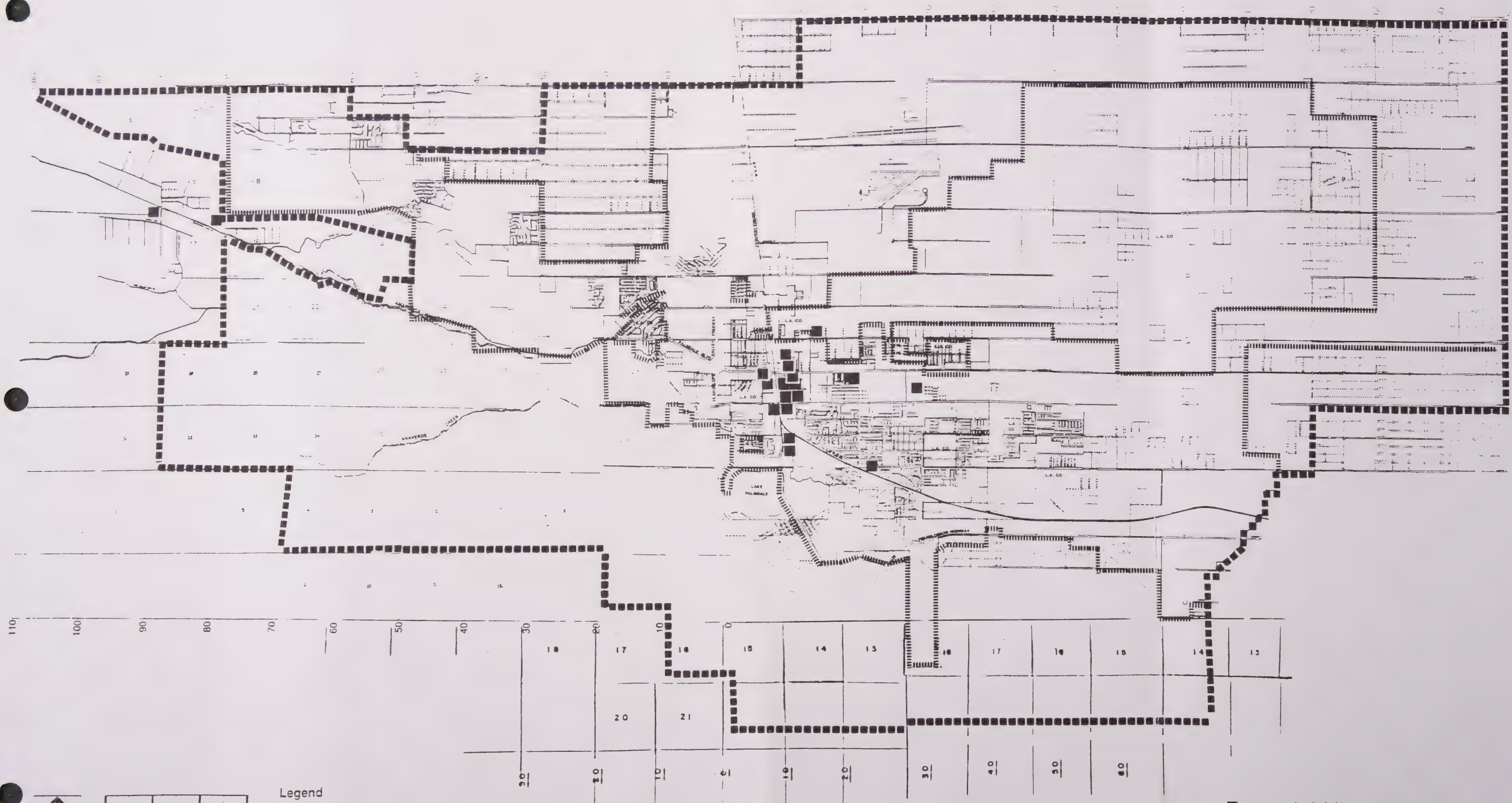
Environmental Resources

TABLE ER-1

POTENTIAL HISTORIC STRUCTURES

Structure	Age	Comments
Single-Family House (Wolf House) 536 E. Palmdale Blvd.	Early 1930	Now: Antelope Valley Mobile Home Sales
Single-Family Houses Ave. Q between 5 th Pl. and 6 th St. E	1920s to 1930s	
Ice Storage South of Ave. R between 6th St. E. and railroad	1918	Ice Storage for fruit and ice; now Bekins Storage
Two-Story Barn-Like Structure 37352 N. Sierra Highway	1920s	Now: Church of the Open Bible
Metal Building 38126 N. Sierra Highway	1920s	Part of L.A. County Maintenance Yard
Concrete Block House 932 E. Ave. R	1918	Imitation rock face probably made by Sadler Block Company (1915)
Six Woodframe Houses Southwest corner of 9 th St. E and Ave. Q-10	1920s	"Edison Company House" for company employees
Single-Family House 816 Ave. Q-9	1910s	
Single-Family House 911 Ave. Q-9	1935	
Concrete Block House 927 Ave. Q-9	1920s	Imitation rock face probably made by Sadler Block Company (1915)
Single-Family House 942 Ave. Q-9	1920s	
Single-Family Houses, South side of Ave. Q-10 between 10 th St. E and 9 th St. E	1913 to 1930's	
Single-Family Houses 38211, 38147, and 38107 10 th St. E	1930s	
Old Palmdale Cemetery Southeast corner of 20 th St. E and Ave. R-12	1880s	
Ranch House in alfalfa fields 1818 E. Palmdale Blvd.	1920s	Now: Spanky's
Old Schoolhouse in McAdam Park 30 th St. E and Ave. R	1900	
Single-Family House 38457 9 th St. E	1920s	
Moore's Hall 38414 8 th St. E	1918	Now: Ace Swimming Supply
Bank of Italy Northeast corner of 8 th St. E and E. Palmdale Blvd.	pre-1918	First bank in Palmdale
Safeway Store, Sierra Highway	1930s	Now: Apollo Tire
Craig Wilson Chicken Ranch Northeast corner of 12 th St. E and Ave. Q		Now: Mountain Muffler
Old Leona Schoolhouse 8367 Elizabeth Lake Rd.	1914	
Store Building Southwest corner of Elizabeth Lake Rd. and 90 th St. W	1920s	

Source: Antelope Valley Historical Society 1989; Palmdale Planning Department 1992.



ER-53

Potential Historic Structures Palmdale General Plan

Adopted by City Council
1/25/93

EXHIBIT ER-6

Archaeological Resources

The majority of archaeological investigations in the Antelope Valley have been conducted in the past 20 years. Results from these investigations point to a lengthy prehistoric tradition. Archaeologists have learned that the Antelope Valley has been inhabited for the past 5,000 years, and may have been occupied many thousands of years before that (Love 1989:15).

The prehistoric cultural tradition in the Antelope Valley most probably follows that of the Mojave Desert. The earliest cultural period for which there is evidence is the Pinto Period, which dates back to at least 6,000 years ago. During this period of time, the climate of the Mojave Desert was becoming arid, and available food resources in the region were decreasing.

An archival record search in 1989 produced 38 recorded archaeological sites within the Planning Area. Two of these sites are of a historic date, while the remainder are of prehistoric time periods. In addition, recent surveys of the City Ranch Specific Plan area and the Ritter Ranch Specific Plan identified a total of 49 new prehistoric archaeological sites and 7 historic archaeological sites. The 28 prehistoric sites in the City Ranch survey include "lithic scatters, hunting blinds, bedrock milling features, and, in two instances, rock art". The rock art at the City Ranch site is composed of cupule boulders (Van Horn et al 1989), and a survey of the Amargosa Creek area (Wessel et al 1989) identified one historic trash scatter (LAn-1554H). The Ritter Ranch survey identified 21 prehistoric sites and 6 historic sites. The prehistoric sites include "10 cupulae (cupules are man-made circular indentations in boulders or rock outcroppings) petroglyph/bedrock milling sites, 7 isolated finds of stone tools and waste flakes from tool manufacturing, 1 grouping of rock lined pit ovens, 1 lithic scatter, and 1 hunting blind constructed of tubular schist slabs" (LSA Associates, Inc. 1989). There are 14 prehistoric sites and 4 historic sites which were identified for preservation.

For purposes of archaeological classification, the Palmdale Planning Area was divided into three primary physiographic environment types: the rift zone, the foothill areas, and the desert floor. The grid layout of streets was also extended throughout the Planning Area to facilitate site location.

Environmental Resources

Plotting the recorded site locations within the grid system resulted in 7 sites (3 historic and 4 prehistoric) on the desert floor area, 26 sites in the foothill areas, and 37 sites in the rift zone area (see Exhibit ER-7). The sites identified in City Ranch add 28 prehistoric and 1 historic archaeological sites to those identified in the foothills and 1 historic site to those identified on the desert floor.

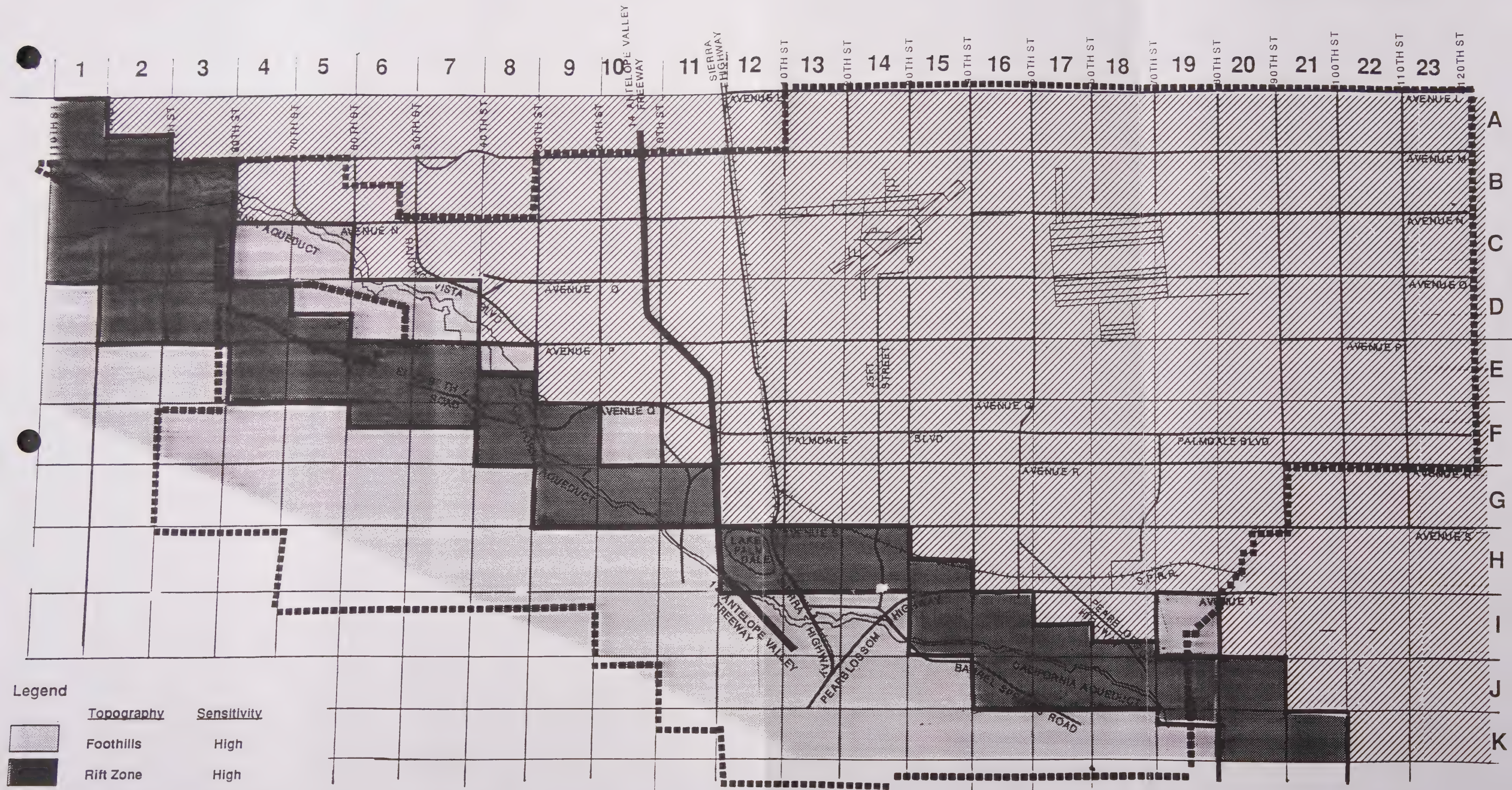
Given the number of sites recorded in the rift zone, along with the availability of water and food resources, it can be suggested that this is an area of high archaeological sensitivity, and there is a high probability of more sites existing in this area.

The foothill areas are located both north of and south of the rift zone, in the southwestern section of the Planning Area. The recorded sites in the foothill area include bedrock milling sites, habitation sites, quarries, rock art, hunting blinds, and numerous lithic scatter sites. Other archaeological sites identified include hunting blinds and cupule sites. Many of the creeks and streams found in the rift zone begin in the foothill areas, and provided generally reliable sources of water for the prehistoric inhabitants of the area. Springs and marsh areas in the rift zone also provide additional food resources. The probability of more sites existing in the foothill areas is high.

The recorded prehistoric sites found on the desert floor areas of the Planning Area include a bedrock mortar, lithic scatters, food processing stations, and possible habitation sites. Sites on the desert floor are widely distributed and are generally located on the perimeter of the area. The two historic sites are located approximately in the center of this area. The probability of discovering additional prehistoric and historic sites appears to be moderately high.

Paleontological Resources

A Paleontologic Sensitivity Study for the Palmdale area was prepared in April 1990 by Robert E. Reynolds, the curator of Earth Sciences at the San Bernardino County Museum. Twelve rock units were identified and categorized into three classifications. The three classifications, high sensitivity/potential, unknown sensitivity/potential, and low sensitivity/potential for resources were based on the assessment of the identified and potential paleontological resources in the rock units.



Legend

<u>Topography</u>		<u>Sensitivity</u>
	Foothills	High
	Rift Zone	High
	Valley Floor	Moderately High
	Not Surveyed	Unknown

ER-56

Archaeological Sensitivity Map Palmdale General Plan

Adopted by City Council
1/25/93

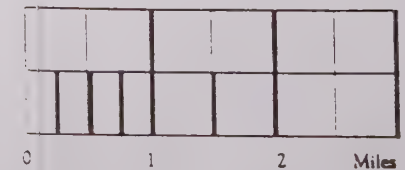


EXHIBIT ER-7

Environmental Resources

- a. High Potential: The Palmdale Planning Area encompasses five sedimentary rock units ranging in age from 12 million to 10,000 years. These rock units have produced significant non-renewable plant and vertebrate paleontologic resources and have a high potential to produce future resources. These units include, chronologically, the Punchbowl, Ana Verde, Harold Formations, the Nadeau Gravels/Pleistocene Old Alluvium, and pleistocene Lacustrine and Fluvial Sediments. Table ER-2 presents characteristics of each.
- b. Unknown Potential: There are two rock units in Palmdale which have an unknown potential for producing paleontological resources, the Vasquez Formation and the Pleistocene Alluvium. The Vasquez Formation is approximately 38 million to 22.5 million years old dating it back to the Oligocene Age. The Pleistocene alluvium which is of high potential is covered by a thin layer of recent alluvium. This layer has an unknown potential for producing paleontologic resources.
- c. Low Potential: There are five igneous and metamorphic rock units in Palmdale which have a low potential to produce significant paleontologic resources. These units include: Precambrian Pelona Schist, mesozoic metavolcanics, Mesozoic granite, quartz monzonite, and diorites.

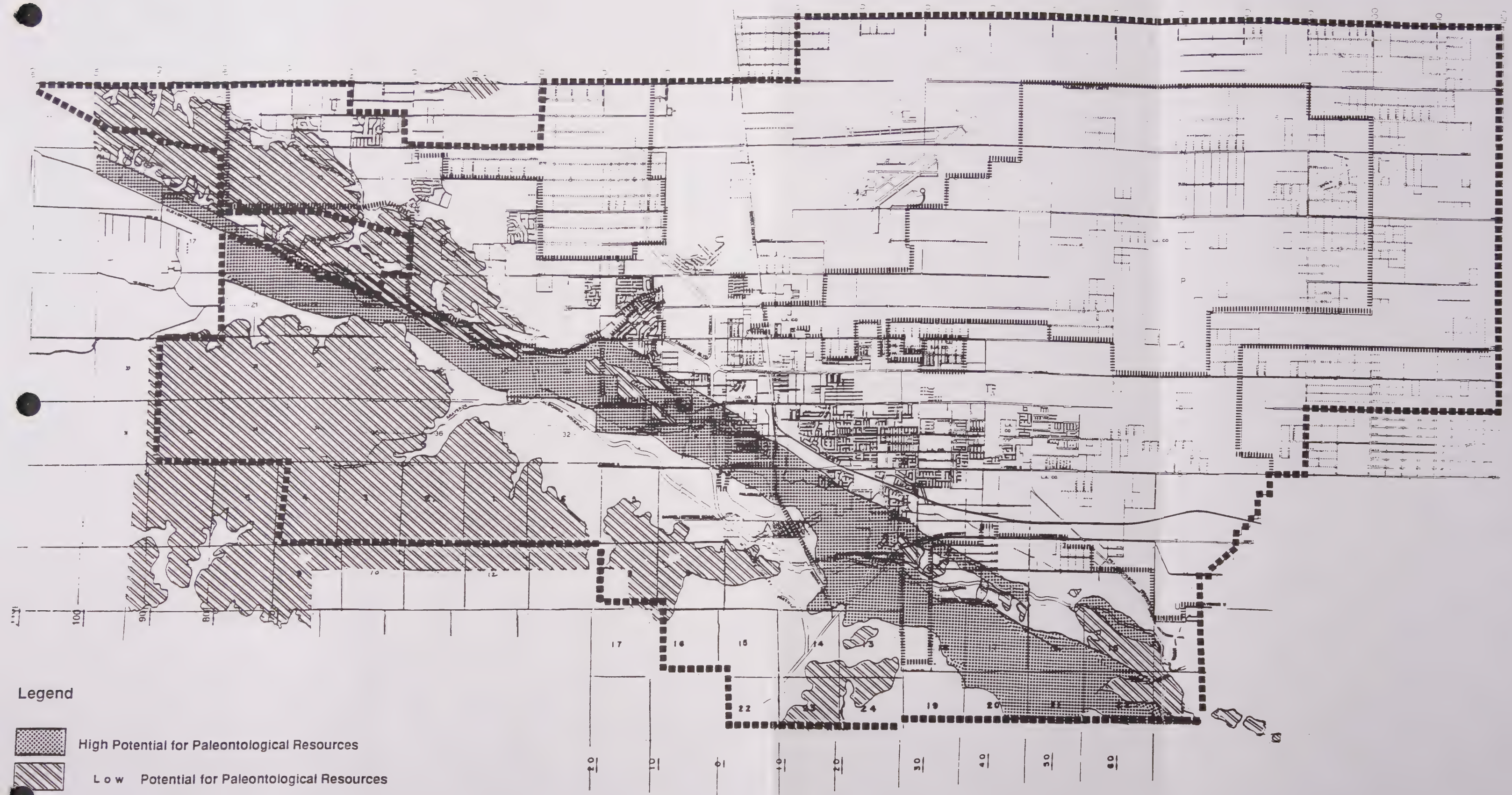
A paleontology records search showed that vertebrate paleontology localities have been recorded between the intersection of Pearblossom Highway and the California Aqueduct and Little Rock Wash. The sites produced fossil horse teeth, mammoth tooth fragments, and rabbit, bird, carnivore, and rodent tooth and bone fragments. The Ana Verde formation along the San Andreas rift zone was found to be an ancient lake deposit containing fossil plants. The City's low-lying areas consist of Quaternary alluvium which is known to contain numerous vertebrate fossils. Although no other paleontological resources have been recorded in the Planning Area, their existence should not be precluded or dismissed. Exhibit ER-8 indicates the paleontological sensitivity of the Palmdale Planning Area.

Environmental Resources




TABLE ER-2

HIGH POTENTIAL PALEONTOLOGIC RESOURCES IN PALMDALE

Rock Formation	Characteristics
Punchbowl	Formation is from the late Miocene period, approximately 12 million years ago. Extinct horses, camel, antelope, mustellid, and bear have been identified.
Ana Verde	Formation is approximately 8 million years old. Seven localities for fossil plants are identified. One site produced 19 plant species. Vertebrate fossils have also been discovered.
Harold	Formation is approximately 800,000 years old. Six sites have been identified. One major site produced vertebrate fossils including; mammoth, mastodon, horse, camel, meadow mouse, wood rat, lizard, and snake.
Nadeau Gravels and Pleistocene Old Alluvium	Deposits are 500,000 years old. There are over 120 sites identified on Edwards Air Force Base. Four sites have produced vertebrate fossil remains.
Pleistocene Lacustrine and Fluvial Sediments	Deposits are approximately 10,000 years old. There are over 180 resource localities identified on Edwards Air Force Base. There are vertebrate fossils and late Pleistocene fauna in these sediments, including; gastropods, clams, fish, lizards, snakes, birds, cottontail, jack rabbit, pocket mouse, kangaroo rat, gopher, deer mice, wood rat, meadow mice, and ground squirrel.



Legend

-  High Potential for Paleontological Resources
-  Low Potential for Paleontological Resources
-  Undetermined

ER-59

Paleontological Sensitivity Map
Palmdale General Plan

Adopted by City Council
1/25/93

EXHIBIT ER-8

3. Air Quality

One of the benefits enjoyed by the citizens of Palmdale is the relatively clean air of the high desert. Unlike the Los Angeles basin, rarely in the Antelope Valley do pollution levels reach the point where smog alerts are issued. However, Antelope Valley air often exceeds the state and federal standards set for two air pollutants: ozone and small particulates less than 10-microns in size (PM₁₀). The consequences of allowing the continued degradation of local air quality include the increase of serious health effects, property damage from oxidizing agents such as ozone, and reduced visibility which affects the aesthetic value of the area. Therefore, improving local air quality is among the goals of the community.

To protect public health and well being, the State and Federal governments have established thresholds for a number of pollutants. Four pollutants most likely to affect the Antelope Valley are continuously monitored in Lancaster by the South Coast Air Quality Management District. These pollutants include ozone, carbon monoxide, nitrogen oxides, and PM₁₀. Table ER-3 shows that federal standards for ozone were exceeded on 118 occasions over the past five years. State standards for ozone are exceeded on 419 occasions. State standards for PM₁₀ were exceeded in 45% of the samples taken during 1989; 38% of the samples taken during 1990; and 19% of samples taken during 1991.

The Antelope Valley lies within the Southeast Desert Air Basin (SEDAB). This air basin is bounded by the Colorado River to the east, the crest of the San Bernardino, San Gabriel, and San Jacinto Mountains to the south and west, and the northern Kern County boundary to the north. The SEDAB contains both high desert areas such as Palmdale and Victorville, and low desert regions including the Palm Springs area.

The SEDAB air mass interacts with that of the South Coast Air Basin to the southwest. The South Coast Air Basin air mass often contains large amounts of emissions and reacted air pollutants that originate from vehicular, commercial and industrial sources in Los Angeles, Orange, Riverside and San Bernardino Counties. Particularly during the summer, polluted South Coast Basin air often moves north into the Antelope Valley. This imported air often arrives with a pollutant load that exceeds the National Ambient Air Quality Standards (NAAQS). It has been determined that ozone air quality standards are exceeded in the Palmdale area by virtue of emissions that are generated outside of the Antelope Valley.

Environmental Resources

TABLE ER-3

**SUMMARY OF AIR QUALITY STANDARD VIOLATIONS
LANCASTER AIR QUALITY MONITORING STATION**

	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Ozone (O₃)					
State standard (1-hr avg 0.09 ppm)					
Federal standard (1-hr avg 0.12 ppm)					
Max. 1-hr ambient concentration (ppm)	0.20	0.18	0.21	0.15	0.14
# of days state standard exceeded	105	105	95	52	62
# of days federal standard exceeded	32	44	27	7	8
Carbon Monoxide (CO)					
State standard (1-hr avg >20 ppm)					
Federal standard (1-hr avg >35 ppm)					
Max. 1-hr ambient concentration (ppm)	12	11	13	11	10
# of days state standard exceeded	0	0	0	0	0
# of days federal standard exceeded	0	0	0	0	0
Nitrogen Dioxide (NO)					
State standard (1-hr avg > 0.25 ppm)					
Federal standard (00.0534 AAM in ppm)					
Max. 1-hr ambient concentration (ppm)	0.09	0.09	0.08	0.09	0.11
# of days state standard exceeded	0	0	0	0	0
# of days federal standard exceeded	0	0	0	0	0
Particulates (TPS)					
Max. 24-hr ambient concentration (ug/m ³)	187	257	154	217	NM
Suspended Particulates (PM10)					
State standard (24-hr avg > 50 ug/m ³)					
Federal standard (24-hr avg > 150 ug/m ³)					
Max. 24-hr ambient concentration (ug/m ³)	NM	NM	110	342	780
% samples exceeding state standard	--	--	45	38	19
% samples exceeding federal standard	--	--	0	3	5

AAM = annual arithmetic mean

NM = not measured

ppm = parts per million

ug/m³ = micrograms per cubic meter

Source: California Air Resources Board, California Air Quality Data, 1987 through 1991

Environmental Resources

Wind blown dust represents a major source of PM10 emissions in the Antelope Valley. Disturbance by man of the desert environment increases the amount of wind-blown dust. This dust contributes to unhealthy PM10 levels as well as reducing visual range and degrading the aesthetic quality of the area.

While much of the area's pollutant load is generated by sources beyond local control, it is important to point out that the community is also a source of air pollutants. The bulk of emissions produced locally are caused by vehicles. These emissions subsequently react under the influence of sunlight, other pollutants and moisture to form reactive contaminants including ozone. While many of these pollutants disperse in the expansive air basin, as local emissions increase, the effect on downwind communities will become more pronounced. Residents of Palmdale directly contribute air pollutants to both the South Coast and the Southeast Desert air basins when they commute between homes in the high desert and jobs in the Los Angeles area.

Mobile sources in the Palmdale area are comprised of conventional vehicles and aircraft. Present and future airport facilities will produce emissions from aircraft, support vehicles and from vehicles of the employees and customers of the facilities.

The air quality on any given day is the result of complex interactions between air pollutant emissions and meteorological forces. Therefore, on each day, the local air quality is different; an emission source may affect residents at one time or day and not on another. Several physical factors can affect air quality, including prevailing wind patterns, topography, average wind speeds by time of day and by season, and the frequency with which temperature inversions occur in the affected area. Air quality in a given locality also depends both upon emissions in the area and upon the transport of air pollutants from upwind areas. For this reason, inland areas of Southern California, such as Palmdale, have the poorest particulate and ozone air quality. Therefore, Palmdale, like other inland communities, is at a relative disadvantage in terms of the effort required to achieve good air quality.

At the present time, the Antelope Valley portion of the SEDAB is under the regulatory authority of the South Coast Air Quality Management District (SCAQMD). This agency establishes rules, regulations, and policies for activities which impact air quality throughout the South Coast and Southeast Desert air basins. In compliance with federal and State law, SCAQMD has prepared an Air Quality Management Plan (AQMP) for the South Coast Air Basin to meet clean air standards. Since this plan was adopted in 1989, SCAQMD has applied the document to both the South Coast Air

Environmental Resources

Basin and the Southeast Desert Air Basin. If, in the future, an attainment plan is prepared specifically for the Southeast Desert air basin, then the provisions of that plan will be applicable to Palmdale and the rest of the Antelope Valley.

The AQMP, last amended in 1991, contains "control measures" that when implemented, will improve air quality throughout the region. These measures are organized into three tiers: Tier I measures can be implemented at the present time with the current technology available; Tier II measures will be implemented in the near future as technology allows; and Tier III measures require advancements in technology that will not be available for many years to come.

At the present time, the AQMP contains approximately 40 Tier I control measures which affect local governments. These control measures range from eliminating leaf blowers to implementing trip reduction programs. Involvement by local government to implement these measures varies, but includes providing enforcement of future district rules, adoption of ordinances, and modifications of local general plans.

The AQMP recognizes that there will be population and economic growth in the area and has recommended that air pollution control strategies take this into account. Downwind areas, such as Palmdale, should be allowed the same opportunities for relative growth as other areas in the two air basins. It is also assumed in the AQMP that equal control efforts will be exerted by all communities. The result of this approach is that all areas within the AQMP will need to achieve a higher level of emissions control, if air quality standards are to be attained.

4. Outdoor Recreation and Amenities

Many types of outdoor recreation take place in a natural setting, and their value depends primarily on the scenic or natural qualities of the environment. Hiking and camping are examples of such resource-oriented recreation. At the other end of this scale are activities requiring user-oriented facilities, such as an urban or local park. Of primary concern related to urban parks is the equitable distribution of these facilities throughout the urban area.

The City of Palmdale Parks and Recreation Master Plan (when completed) will discuss existing and proposed facilities, as well as policies for the enhancement of recreational opportunities, in more detail the following sections briefly address other outdoor recreational amenities.

Bikeways

Bikeways can serve as corridors connecting parks and natural areas around the community. They help satisfy the requirements for open space and parks and can serve as emergency access routes. Bikeways also encourage the use of the bicycle as an alternative mode of transportation. Well maintained bikeways can provide routes for both recreational and utility purposes throughout the City. Bikeway plans will be discussed within the Parks, Recreation and Trails Element.

Equestrian and Hiking Trails

Equestrian and hiking trails, which are separated from vehicular traffic, ideally lead through park-like natural areas. In urban areas, many of these trails are combined with flood control rights-of-way, or buffered from development by landscaped or natural areas. These trail systems must accommodate a variety of users and provide a variety of experiences. Safety and health concerns must be addressed during design and maintenance. Priority funding shall be based on user demand and multi-use facilities. Handicapped accessibility to trails should also be considered.

The City may offer incentives to developers for dedicating land or allowing public access to private land to continue and expand the trail network. Possible incentives could include the reduction or elimination of park fees for the development (if residential), reduction or elimination of landscaping assessment district fees, and density bonuses. Plans for a multi-use trail system are included in the City's Master Parks and Recreation Plan. The Overlay Map shows the North Los Angeles County Trails Network. This network will be employed in the interim until adoption of the Parks, Recreation and Trails Element.

Scenic Areas

Scenic areas include open space and landscaped corridors and viewsheds. They provide visual enhancement and pleasure and are worthy of preservation for aesthetic, historical, topographical, cultural, or biological reasons.

The Lamont Odett Vista Point, just off the Antelope Valley Freeway, provides a view of Lake Palmdale and the City. The Godde Hills Road winds up the Portal Ridge Mountains and overlooks the entire Antelope Valley. Bouquet Canyon Road is well-known for its tree-lined canyon and winding stream. Juniper Hills Drive is a circular

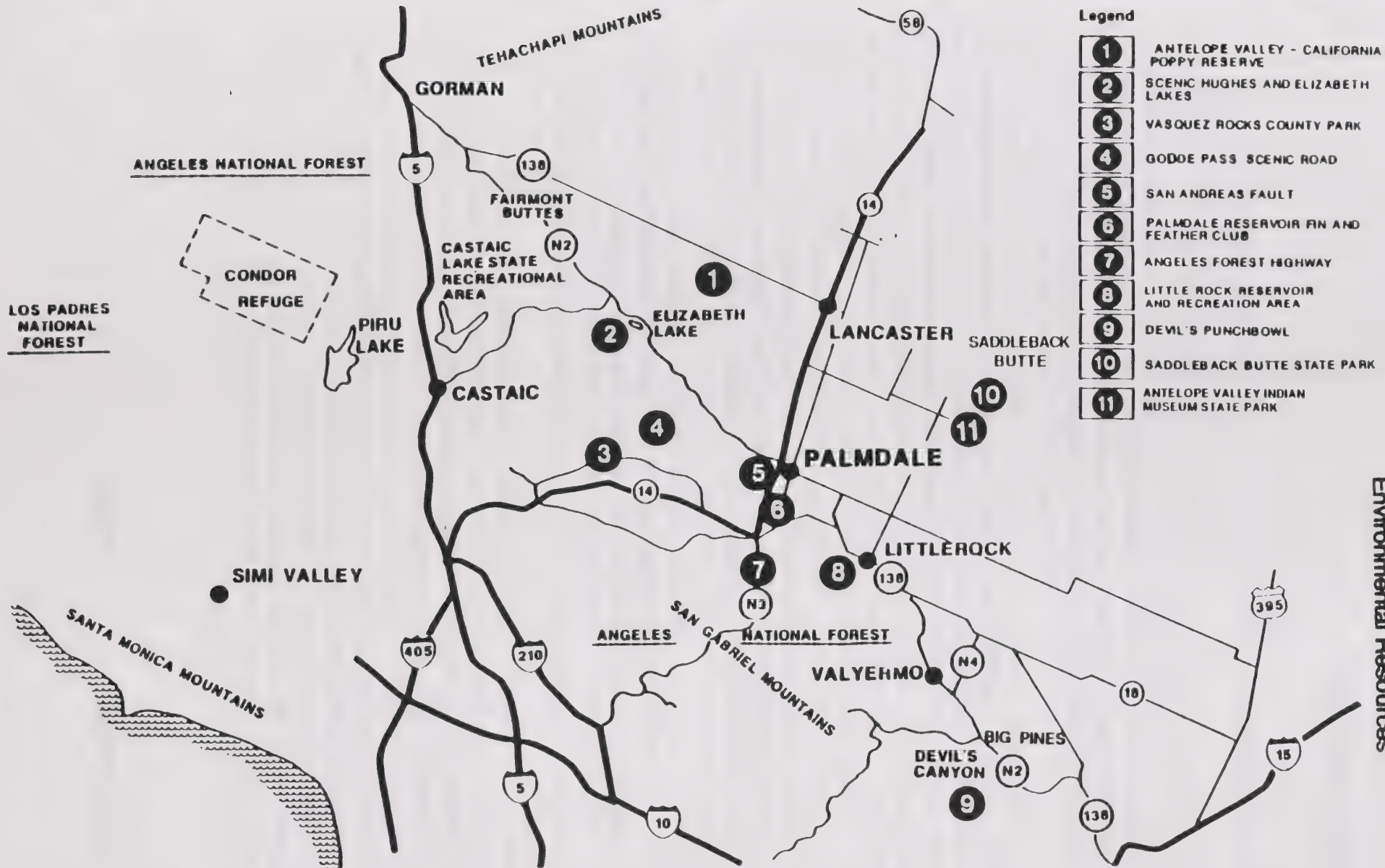
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road lined with junipers and tamarisks and rises up to 4,000 feet above sea level. These scenic areas are among many in the valley that include the Angeles National Forest south and west of the Planning Area and wildlife reserves east of the area.

Major Landscapes

Landforms in and around Palmdale form three major, distinct landscape types. Each of these landscapes represents a combination of potential recreation resources for residents of the Palmdale area. The location of these landscapes relative to Palmdale is shown on Exhibit ER-9.

- a. **The Mountain Areas.** Most of the mountain areas are within the jurisdiction of the Angeles National Forest. These areas are managed, wherever possible, to include a variety of recreation opportunities compatible with the primary goal of watershed protection.
- b. **The Desert Slope and San Andreas Rift Zone.** At present, landforms of the desert slope and the rift zone of the San Andreas Fault provide open space resources for the entire region. They form the scenic backdrop for the Antelope Valley, and at the same time, they support outdoor recreation use. Resources in the area are linked together by the California Aqueduct and the trail that parallels it. (The trail is not open to the public at this time.) Increasing recreation uses and development pressure near this high amenity area call for careful management.
- c. **The Desert Plains and Buttes.** The Antelope Valley, with its high desert plain, buttes, and alkali sinks, offers a great variety of opportunities for recreation. In the western portion of the valley, Antelope Buttes and Fairmont Buttes offer considerable potential for interweaving compatible recreation and natural resource preservation areas. In the east, this potential is presented by the unique landform and habitat areas surrounding the Saddleback Buttes State Park. The West Alpine and Alpine Butte Wildlife Sanctuaries can also be found in this same area.



Environmental Resources



EXHIBIT ER-9

Regional Scenic and Recreational Opportunities Palmdale General Plan

ER-66

Adopted by City Council
1/25/93

Environmental Resources

5. Scenic Highways

A primary component of many outdoor recreation activities is movement or travel. One of the most popular forms of outdoor recreation in southern California is driving for pleasure and the travel to and from recreation areas is considered a major part of the experience. Thus, the moving landscape, or scenic corridor, is a part of the landscape system, both as a connecting element and as a landscape in its own right.

A scenic highway presents opportunities for visual stimulation for automobile passengers. In North Los Angeles County, the view from the road is characterized by panoramic vistas of rugged mountains, steep canyon slopes covered with native chaparral, extensive areas of the Mojave Desert, and rural or small-town settings. Thus far, development has not significantly reduced scenic potential and there is an opportunity for public investment to ensure the future maintenance of this visual resource. Although many roadways in the North Los Angeles County area may be considered scenic, only the Angeles Crest Highway (Route 2) from the La Canada/Angeles National Forest boundary to the San Bernardino County Line has been officially designated a scenic highway by the California Department of Transportation. Official scenic highways are designated by the State Scenic Highway Advisory Committee.

There are no hard and fast regulations defining the visual characteristics which qualify a road as a scenic highway, but the following considerations may be utilized:

- **Visibility.** The vehicle occupants should be able to view expansive scenery without having to stop.
- **Landforms.** The roadway transverses areas dominated by the physical characteristics of the natural corridor, such as gently rolling hills or rugged cliffs, streams, geologic formations, and distant ridges.
- **Vegetation.** The roadway abuts areas with distinctive vegetation within view, such as row crops, orchards, chaparral, or woodlands.
- **Structures.** Buildings may be included in scenic corridors and may add to scenic quality.

- **Panoramas.** Scenic overlooks with panoramic views of urban, rural, or natural areas should be included when available.

With proper design and management of these corridor landscapes, scenic highways can not only enhance the quality of the recreation experience, but also provide the kind of "open space system" that organizes and communicates the coherence and identity of the region. Scenic natural areas must be preserved where they are found and cannot be evenly distributed like parks. Their enjoyment may require travel.

Development of this type of area depends on the availability of a quality landscape and the opportunity to enjoy it. Controlling the visual environment and preventing its overuse are, therefore, the critical design and management problems. Proposed scenic roadways are shown in Exhibit ER-1.

C. Constraints

Constraints to effective environmental resource management include ecological, governmental, economic and political factors. The area's finite resources and their interdependence with other aspects of the ecosystem determine their suitability for management and control. City regulations may have unintended side effects on the preservation and prudent use of resources. Economic constraints and pressures are often felt by private owners in planning the use of development on their land, as well as by public agencies attempting to preserve open space and develop parks and recreation facilities. Constraints that may affect environmental resource management in Palmdale are discussed below.

1. **Development Pressure and Rising Property Values:** The preservation of open space is constrained by the rising property values and strong development pressures that cause rapid development. Construction has boomed in Palmdale; more than 2,000 housing units were added each year between 1987 and 1990. As development increases and property values appreciate, development may become financially feasible in such hazardous building zones as landslide areas, areas of ground subsidence, and flood risk areas, further increasing pressure to reduce open space in the Palmdale area. Development pressures also reduce the amount of land available for mining and excavation of mineral resources. Continuing development may limit these uses to marginal areas where no other uses are allowed--airport crash zones, flood plains, and earthquake rift zones.

Environmental Resources

2. **Limited City Resources:** Limited financial resources also restrict the City's ability to purchase land for open space preservation and parks and recreation needs. City funds are more likely to be spent first on high priority items, such as providing infrastructure and public services to residents. In addition to limited funds available for the purchase of land and facilities for parks and recreation programs, rising park development and maintenance costs have curtailed parkland expansions in recent years. Even if parkland can be acquired, the costs of developing and operating the park facilities can be prohibitive.
3. **Uncoordinated Development:** Uncoordinated development on scattered sites or development occurring at various times without a logical phasing sequence can contribute to the lack of a unified open space system in the Palmdale area. Open space areas provided by individual developments tend to be small, and these areas often don't relate to neighboring parks, trails, ridgelines, or other open space areas.
4. **Existing Development and Zoning:** The extraction of mineral resources is restricted by existing development on or near prime resource deposits and by incompatible zoning designations on adjacent property. The regional market for sand and gravel resources may make mining in these areas profitable, but mining may not be allowed because of land use restrictions. Existing development could also restrict access to underlying mineral resources.
5. **State and Federal Regulations:** State and federal laws relating to flood control, water resources, and habitat preservation can act as regulatory constraints to mining activities. Sand and gravel resources in Palmdale are located primarily in the Little Rock Wash area, which is subject to state and federal wetland resource habitat preservation, Fish and Game regulations, as well as surface mining regulations.
6. **Insufficient Sewer Infrastructure:** Some of the older portions of Palmdale have been developed using individual septic systems for each house rather than a public sewer system. Septic systems must be maintained in order to avoid contamination of the surrounding area. Some parts of the Planning Area have already experienced septic system failure, possibly contaminating local water supplies.

Environmental Resources

7. **Rate of Population Growth:** The physical changes brought about by human settlement of the region have made it difficult for native plant and wildlife species to survive. Development has introduced non-native plant species to the area that require regular watering to survive. Development can also block access to or eliminate foraging and nesting areas, and introduces air and water pollution that can damage or destroy wildlife habitats. Many desert plants and animals do not adapt well to urban development--for example, Joshua trees cannot tolerate much disturbance of their root zones or the irrigation typical of residential landscaping.
8. **Lack of Information:** One obstacle to the preservation of cultural resources is the lack of resource surveys of the Planning Area. Palmdale and its sphere of influence are largely undeveloped and have not been surveyed extensively for the presence of archaeological, paleontological, and historic resources.
9. **Geographic Setting:** Constraints to clean air include the Palmdale area's topography and patterns of wind movement. Wind, atmospheric stability, terrain, and sunshine contribute to the atmosphere's ability to dilute pollutants. Atmospheric stability also suppresses vertical dilution of pollutants. Air pollutants generated south of Palmdale in the Los Angeles metropolitan area are transported to the Antelope Valley by air currents, adding to the pollutants generated within the valley.
10. **Imbalance Between Jobs and Housing:** The Palmdale area's current imbalance between employment opportunities and housing increases vehicle emissions generated by residents driving to other areas to work.
11. **Governmental Complexity:** Finally, the process of preservation or resource management itself can deter efforts to protect some resources. For example, the local designation of scenic highways must begin with a study of potential candidates for designation, and proceed through staff recommendations to City Council adoption and to state designation by the State Scenic Highways Advisory Committee. The time and commitment requirements of this process can limit the protection of scenic resources.



P u b l i c S e r v i c e s
E l e m e n t

SECTION 1: INTRODUCTION

The Public Services Element presents a plan for ensuring that public services and infrastructure are available to permit orderly growth and to promote public health, safety, and welfare. The Element provides a framework within which individual property owners can plan the development of their property and be assured that basic infrastructure and services are adequate. Individual service providers and property owners may not be aware of citywide or regional issues that affect the ultimate users of their development. This Element provides an area-wide assessment of various public services and facilities to promote a broader understanding of service issues.

The Public Services Element sets forth policies and standards for the rational and cost-efficient provision and extension of public services to support planned development. It addresses present conditions and concerns and establishes measures to accommodate future growth and development patterns. The Public Services Element is most closely interrelated to the Land Use Element. The policies and implementation programs in the Public Services Element are designed to ensure that adequate infrastructure will be available to keep pace with the type and extent of development anticipated in the Land Use Element.

Specifically, the Public Services Element serves the following purposes:

1. The Public Services Element serves as a guide for decision making by the development community and by public officials in determining future expenditures of public funds.
2. The Public Services Element informs the public of the goals, objectives, and policies of the City for maintenance and improvement of public services and facilities. It provides implementation measures and programs that will serve as a guide for the day-to-day operational decisions of City staff.
3. The Public Services Element evaluates the existing level of public services and utilities in the City including water, sewer, storm drainage, police and fire protection, power, natural gas, telephone, solid waste disposal, cable, library, hospital and school services. It identifies issues, needs and plans for meeting future infrastructure requirements.

SECTION 2: GOALS, OBJECTIVES AND POLICIES

GOAL PS1: Ensure that adequate public services and facilities are available to support development in an efficient and orderly manner.

Objective PS1.1: Ensure that all new development in Palmdale provides for the infrastructure and public services needed to support it.

Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.

Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.

Policy PS1.1.3: Require that on- and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.

Policy PS1.1.4: Require that adequate provisions are made, as approved by the City, for maintenance of public improvements or any facility or land to be maintained by the City prior to approval of any new development project.

Policy PS1.1.5: When new development is proposed in vacant, rural areas which have not yet been master-planned for provision of infrastructure, require that development proponents provide for or contribute a fair share towards development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire and other community facilities, prior to granting conditional approval of development applications.

Policy PS1.1.6: When reviewing applications for land use designation changes (i.e., zone change, General Plan Amendment, specific plan amendment), conduct a thorough analysis of the impacts of the proposed change on all elements of the City's infrastructure systems, and require mitigation as deemed appropriate.

Public Services

Objective PS1.2: Ensure that new development is coordinated with provision of backbone infrastructure within the site and with adjacent properties, to promote cost-efficient construction and maintenance, and ease of access to facilities.

Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.

Policy PS1.2.3: Require that the proposed infrastructure design within a development project permits economical and efficient development of land, both on the subject property and on adjacent properties.

Policy PS1.2.4: Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.

Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.

Policy PS1.2.6: Where feasible, require that consideration be given to sharing drainage facilities between adjacent subdivisions, with the cost shared on a "fair share" basis.

Policy PS1.2.7: Ensure that street rights-of-way, drainage facilities, site grading, or other similar public infrastructure are not aligned in a manner that increases the developability of a single property at the expense of an adjacent property, unless so required by regional infrastructure plans.

Policy PS1.2.8: Distribute the costs of extending infrastructure equitably among those benefiting from the improvements.

Objective PS1.3: Utilize land use strategies to maximize use of infrastructure facilities.

Policy PS1.3.1: Evaluate annexation of unincorporated developed areas adjacent to or surrounded by the City to ensure that greater efficiency in provision of services will be achieved.

Policy PS1.3.2: Direct growth towards areas which already have backbone infrastructure available, by providing incentives for quality infill development.

Policy PS1.3.3: Encourage development which fully utilizes existing infrastructure systems, while decreasing the need for costly extensions of infrastructure into undeveloped areas.

Policy PS1.3.4: Encourage clustering of development where appropriate, to maximize use of infrastructure.

Policy PS1.3.5: Adopt comprehensive planning documents such as area plans, specific plans and development agreements, to specify the nature, timing and financing of public improvements and services.

Policy PS1.3.6: Encourage mixed use development, to maximize use of infrastructure system.

Objective PS1.4: Develop and implement City programs to plan for, construct and maintain municipal facilities.

Policy PS1.4.1: Adopt and annually update the City's Capital Improvement Program (CIP) to prioritize funding for public works projects in accordance with this General Plan.

Policy PS1.4.2: Adopt and implement service level standards for roads, drainage and park facilities, through on-going monitoring of existing levels of service and through the CIP.

Policy PS1.4.3: Adopt, implement and annually review user fee and impact fee programs, to support the cost of constructing capital facilities and providing services.

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Policy PS1.4.4: Explore and implement a variety of public financing methods to fund infrastructure improvements, including assessment districts, Mello-Roos community facilities districts, redevelopment funds, block grant funds, and/or combinations of these and other available funding sources.

Policy PS1.4.5: Adopt funding mechanisms to fund community facilities throughout the community, which may address the Civic Center, library, recreation center, performing arts center, public works yard, senior center expansion, Maryott Auditorium rehabilitation, and other public facilities as deemed appropriate.

Policy PS1.4.6: Evaluate the need for satellite City services throughout the community.

Policy PS1.4.7: Evaluate infrastructure facilities and service levels within developed areas which annex to the City, and promote programs to retrofit street, drainage and sewer improvements where warranted.

Objective PS1.5: Coordinate with other jurisdictions in the Antelope Valley to provide for regional infrastructure improvements, minimize impacts of Palmdale development on adjacent jurisdictions, and provide unified support for mutually beneficial improvements requiring outside approvals and/or funding.

Policy PS1.5.1: Through the development review process, inform adjacent cities, town councils and/or county agencies of development proposals which may impact their infrastructure systems, and consider their input and recommendation in the land use decision process.

Policy PS1.5.2: Inform adjacent cities, town councils and county agencies of City-initiated planning and public works projects which may impact their infrastructure systems, and consider their input and recommendations in the land use decision process.

Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff's department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.

Policy PS1.5.4: Participate in regional efforts to gain State or Federal funding for area-wide improvements.

Objective PS1.6: Ensure that utilities are provided to serve development in Palmdale in an efficient and aesthetic manner.

Policy PS1.6.1: Through adoption of an ordinance, regulate utility line and other utility infrastructure placement and require undergrounding where feasible.

Policy PS1.6.2: Coordinate installation of utility line placement with street construction where possible, to minimize cost.

Policy PS1.6.3: Through the development review process, protect existing utility easements and require dedication of additional easements where needed.

GOAL PS2: Ensure that all development in Palmdale is served by adequate water distribution and sewage facilities.

Objective PS2.1: Require that all development be serviced by water supply systems meeting minimum standards for domestic and emergency supply and quality.

Policy PS2.1.1: Require new development to obtain adequate water service to meet the increased service needs generated by that development.

Policy PS2.1.2: Protect groundwater quality, through policies and implementation measures contained in the Environmental Resources Element.

Policy PS2.1.3: Promote water conservation and long-term water management in all phases of development planning and construction, through policies and implementation measures contained in the Environmental Resources Element.

Policy PS2.1.4: Support water suppliers and other jurisdictions within the Antelope Valley in studying the current status and projected needs for water supply and delivery.

Objective PS2.2: Require that all development be served by sewage disposal systems which are adequately sized to handle expected wastewater flows and designed and maintained to protect the health of residents.

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Policy PS2.2.1: Coordinate with the Los Angeles County Sanitation District to evaluate the sewage disposal system as often as necessary (at least biannually), to ensure adequacy of the system to meet changes in demand and changes in types of waste which occur as a result of development.

Policy PS2.2.2: Require new development to pay necessary fees for expansion of the sewage disposal system to the appropriate agencies, to handle the increased load which it will generate.

Policy PS2.2.3: Support the Los Angeles County Sanitation District in preparation of a master plan for regional sewer facilities in Palmdale.

Policy PS2.2.4: Require that all commercial, industrial, institutional, multiple family and single family residential uses with lot sizes of less than one acre be connected to a public sewer system.

Policy PS2.2.5: Promote annexation of incorporated areas into the Los Angeles County Sanitation District boundaries in a logical fashion, to promote efficient master-planning for sewer facilities.

Policy PS2.2.6: Work with the Sanitation District to identify users for reclaimed water and support plans for its treatment and distribution.

GOAL PS3: Develop and maintain adequate storm drainage and flood control facilities.

Objective PS3.1: Maintain and implement the City's adopted Master Drainage Plan.

Policy PS3.1.1: Continue the drainage impact fee program and periodically adjust fees as needed.

Policy PS3.1.2: Evaluate the impact of all new development and expansion of existing facilities on storm runoff and ensure that the cost of upgrading existing drainage facilities to handle the additional runoff is paid for by the development which generates it.

Policy PS3.1.3: Make use of interim local drainage detention basins to slow stormwater runoff, until such time as permanent drainage facilities are constructed.

Policy PS3.1.4: Through the development review process, reserve land from development in appropriate locations for construction of drainage facilities.

Policy PS3.1.5: Require and provide for on-going maintenance of drainage and detention facilities, to ensure their continued effectiveness in controlling runoff.

Objective PS3.2: Coordinate drainage master planning with environmental resource management.

Policy PS3.2.1: Where feasible, plan for detention or retention facilities in areas where groundwater recharge can be accomplished.

Policy PS3.2.2: Where feasible, construct drainage facilities so as to protect or enhance natural riparian habitat areas.

Policy PS3.2.3: Where feasible, combine drainage facilities with opportunities for recreation, as in placement of trails within drainage easements, or placement of ball fields within detention areas.

GOAL PS4: Support the provision of local educational opportunities for community residents.

Objective PS4.1: Cooperate with school districts serving the City of Palmdale to develop and implement strategies for obtaining school sites and construction financing.

Policy PS4.1.1: Through the development review process, ensure that adequate school sites are reserved to serve the ultimate needs of the population; coordinate with school districts to identify appropriate sites and consider school district master plans in evaluating development proposals.

Policy PS4.1.2: Offer administrative, planning and engineering assistance to the school districts in reviewing school site plans with respect to City plans for drainage, traffic, adjacent land uses and other considerations.

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Policy PS4.1.3: In review of development adjacent to school sites, ensure that street and lot placement, grades, walls and other design considerations are incorporated into the design so as to minimize potential conflicts with school uses.

Policy PS4.1.4: Condition approvals of development projects to meet the funding requirements of applicable school districts to the extent permitted by law. On legislative decisions such as zone changes, General Plan Amendments, require appropriate school mitigation as determined by the affected districts to the extent permitted by law.

Policy PS4.1.5: Support joint use of school and City park facilities, where appropriate, to meet the needs of the local community, through site location and planning, and assistance with construction funds.

Policy PS4.1.6: Provide demographic and growth data to the districts so as to assist them in development of facility master plans.

Objective PS4.2: Promote a variety of educational opportunities within Palmdale, to serve the needs of all segments of the population.

Policy PS4.2.1: Cooperate with other jurisdictions and public or private agencies to work towards establishment of a four-year college or university in the Antelope Valley.

Policy PS4.2.2: Facilitate location of pre-school and day-care facilities in appropriate areas throughout the community, so as to meet the needs of the working population.

Policy PS4.2.3: Support continuing education programs, such as literacy training, through City library and park programs.

Policy PS4.2.4: In order to encourage development of educational facilities, permit development of private educational facilities which are found to meet the general educational needs of the community within residentially-designated districts, subject to approval of a Conditional Use Permit.

GOAL PS5: Support the provision of adequate public and community services to meet the needs of residents.

Objective PS5.1: Ensure provision of fire protection facilities and equipment needed to protect existing and future development.

Policy PS5.1.1: Obtain fire protection, fire prevention and paramedic services from Los Angeles County Fire Protection District.

Policy PS5.1.2: Monitor needs and service levels, and strive to minimize response time in both urbanized areas and rural or outlying areas.

Policy PS5.1.3: Through the development review process, assess fire protection needs of development projects and require mitigation needed to maintain adequate service levels, including but not limited to reservation of sites for fire stations and fair-share contributions for fire suppression equipment.

Policy PS5.1.4: Coordinate with and assist the Fire Protection District in planning for future fire station sites in Palmdale, and facilitate location and construction of fire stations in conjunction with other City facilities (such as parks or municipal buildings) where feasible.

Objective PS5.2: Support the provision of adequate law enforcement services to meet the needs of City residents.

Policy PS5.2.1: Contract with the Los Angeles County Sheriff's Department for law enforcement services.

Policy PS5.2.2: Coordinate with and provide input to the Sheriff's Department regarding planning for sheriff's facilities serving Palmdale, with the goal of ultimately obtaining a full-service sheriff's station and satellite stations as needed to serve the community.

Policy PS5.2.3: Monitor staffing and service levels for law enforcement services and work with the Sheriff's Department to ensure adequate staffing to meet service level needs of the community.

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Policy PS5.2.4: Provide a program of pro-active community-based policing in selected areas which merit special attention based upon needs for law enforcement, code enforcement, housing rehabilitation, graffiti control, and personal contact with officials capable of providing assistance.

Objective PS5.3: Provide library service to meet the needs of existing and future library residents.

Policy PS5.3.1: Evaluate the existing and future library system in the Planning Area and plan for provision of sufficient facility space and materials to serve the population.

Policy PS5.3.2: Adopt and implement the following standards as a goal for library service to the community:

- 2.5 volumes per capita
- 8.5 periodicals per 1,000 population
- 0.5 staff per 1,000 population
- 5.0 reader's seats per 1,000 population
- 0.8 square foot of building space per capita.

Policy PS5.3.3: Maintain reciprocal agreements with the county library system and other institutions to provide an additional resource in the City.

Policy PS5.3.4: Promote the construction of new libraries and the expansion of existing libraries as required to meet the needs of existing and future population.

Policy PS5.3.5: Encourage the provision of library outreach services for residents who cannot visit library facilities.

Objective PS5.4: Provide adequate park and recreation facilities to meet the needs of existing and future residents.

Policy PS5.4.1: Adopt and implement a standard of 5 acres of parkland per 1,000 population for the City.

Policy PS5.4.2: Implement the Parks, Recreation and Trails Element as a master plan for park acquisition and improvement.

Policy PS5.4.3: Develop a recreation facility to meet the regional recreation needs of the community.

Policy PS5.4.4: Collect park fees and review this fee annually, to provide financing for improvement of parkland in Palmdale.

Policy PS5.4.5: Seek public input on design of all new neighborhood and community parks in Palmdale.

Policy PS5.4.6: Explore various means of acquiring parkland and seek creative and flexible techniques to accomplish City park goals, including but not limited to fee vouchers in exchange for parkland.

Policy PS5.4.7: Where feasible, utilize parks for joint use as flood control facilities.

Objective PS5.5: Promote adequate provision of health care services and programs which serve all segments of the population.

Policy PS5.5.1: Encourage the balanced development of medical care facilities throughout the City.

Policy PS5.5.2: Work with Los Angeles County to assist in coordination of health care programs for City residents.

Objective PS5.6: Provide accessible, convenient facilities for municipal services.

Policy PS5.6.1: Develop a city hall and related facilities within the Civic Center Master Plan area, as approved by the City Council on March 3, 1992.

Policy PS5.6.2: Provide coordinated development services at a centralized location.

Policy PS5.6.3: Promote provision of a full range of public services within the Civic Center plan area, including library, cultural center, sheriff's station, fire station, and City administration.

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Objective PS5.7: Provide enforcement services to ensure compliance with municipal codes and ordinances, to protect public health and safety, preserve property values, and maintain a clean and orderly environment for Palmdale residents.

Policy PS5.7.1: Maintain a responsive Code Enforcement division to assist the public in achieving code compliance.

Policy 5.7.2: Provide pro-active enforcement of graffiti control using all available means.

Objective PS5.8: Provide opportunities for cultural and artistic activities within the community.

Policy PS5.8.1: Develop or provide a performing arts center to serve a variety of musical, theatrical, exhibit and community needs.

GOAL PS6: Ensure provision of adequate facilities and programs to accommodate solid waste and hazardous waste collection, handling and disposal.

Objective PS6.1: Implement the City's adopted Solid Waste Management Plan (SWMP) (adopted on November 14, 1991 by Resolution 91-236).

Policy PS6.1.1: Review proposed development with respect to the SWMP to ensure consistency.

Policy PS6.1.2: Base future decisions on franchise agreements on the SWMP.

Policy PS6.1.3: Develop and implement waste reduction and recycling programs in compliance with the SWMP.

Policy PS6.1.4: Update and maintain the SWMP as needed, with a complete review at least every five years, to ensure that the Plan accurately reflects changing waste stream conditions, government regulations, and City goals.

Objective PS6.2: Adopt and implement the City's Hazardous Waste Management Plan (HWMP).

Policy PS6.2.1: Identify hazardous waste generators and their waste streams by type and quantity, and facilitate the use of appropriate hazardous waste management technology by generators, placing the greatest emphasis on those technologies which achieve source reduction and waste minimization.

Policy PS6.2.2: Ensure that the siting of hazardous waste facilities in the City is consistent with the General Plan, including provisions to ensure protection of residents, businesses and environmental resources, and provide for the safe transport of wastes.

Policy PS6.2.3: Provide opportunities for public participation in the review of proposed hazardous waste facilities.

Policy PS6.2.4: Facilitate compliance with regulations requiring the preparation of Hazardous Materials Management Plans and Risk Management Prevention Plans, as applicable to handlers of specified hazardous materials and acutely hazardous materials.

Policy PS6.2.5: Facilitate the implementation of programs designed to provide for the safe management of hazardous wastes generated by small quantity generators, including households.

Policy PS6.2.6: Support the regulation and enforcement of hazardous waste laws governing the generation, handling, storage, transport, treatment and disposal of hazardous waste.

Policy PS6.2.7: Require disclosure of the presence of hazardous materials on property proposed for development.

GOAL PS7: Provide for open space elements throughout the planning area which preserve significant natural, historic, scenic and topographic features while minimizing fiscal impacts to the City and its residents.

Objective PS7.1: Ensure that any land proposed to be acquired, dedicated or maintained by the City will contribute benefits to the general public, and that short- and long-term impacts of accepting responsibility for such land are adequately evaluated by the City.

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Policy PS7.1.1: Evaluate proposed dedications of land or easements to the City for various purposes based on the following criteria:

- a. Natural Open Space/Trails/Parkland: The proposed dedication of land or easements for the purpose of natural open space, trails, or parkland to the City should be evaluated based on the following criteria:
 1. The open space, trails and/or parkland dedication should serve the open space/recreational needs of the City, rather than the more localized benefit of a single neighborhood.
 2. Other responsible agencies or land trusts should be considered as an alternative to outright dedication of open space to the City. In these instances, the City should determine whether a blanket easement to the City for open space and passive recreation is desirable.
 3. The open space area or trails should be reviewed to determine if they are adjacent to other publicly held open space and whether they are an integral element in the ultimate development of local or regional trails or a local/regional greenbelt. Trails should be reviewed to determine consistency with proposed alignments contained in the City's Parks, Recreation and Trails Element, North County Plan or any other recognized plan.
 4. An evaluation should be made to ascertain whether the proposed area contains biotic, historic, or cultural resources of local or regional significance or whether the site represents a natural and scenic resource to the City.
 5. An evaluation of any adjacent proposed development should ascertain the impacts of such development on the natural resources and aesthetic qualities of the site.
 6. For natural areas which are in a degraded condition due to human activity or natural events such as fire or flood, an evaluation should be made of the costs to restore such sites to their natural or a useable condition.

7. Open space and trails should be accessible to the general public and provide general benefit; remnant areas within developments which are undevelopable may not be appropriate for acceptance in all cases, and may be more suitably maintained by a homeowners' association.
 8. The short- and long-term fiscal impacts of accepting, improving and maintaining open space or trails should be evaluated. Such evaluation should include an assessment of existing and potential fire hazards in wildland areas, geologic conditions, hazardous material assessments, or other site conditions which may require significant City expenditure for mitigation.
 9. Any proposed parkland should be evaluated to determine whether there is: a) an identified need for additional parkland within the area; b) whether the site is of adequate size and shape to accomodate park development; c) whether the site is proposed to incorporate additional facilities such as drainage basins; d) whether the site is compatible with existing and proposed adjacent land uses; e) whether the site is accessible to the general public; and f) whether the proposed dedication would provide greater benefit than would the collection of fees to be used for development of existing dedicated park sites.
- b. Slopes/Parkways: Where development projects propose the annexation of slope areas and/or parkways into the City landscape assessment district for maintenance, such areas shall be evaluated utilizing the following criteria:
1. Any slope proposed for City maintenance should be evaluated to ensure that the slope is: a) adjacent to a designated arterial right-of-way; b) contiguous to district-maintained land; c) accessible to maintenance vehicles; and d) the overall height and slope ratio is acceptable.
 2. Development proposals which include slopes of excessive height and length which are proposed for City maintenance should be evaluated with respect to other design alternatives which could limit these slopes. Publicly maintained slopes should be minimized to the extent feasible.

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3. The short- and long-term fiscal impacts of accepting maintenance of slopes should be evaluated.
4. Any parkways and slopes to be maintained by the City should be found to provide benefit to the general public through provision of safe, efficient and attractive streetscapes and easements. City maintenance should not be expected for areas where slopes or landscaping will provide only a local benefit to a limited area, such as where they have been created to develop view lots or marketing corridors.

GOAL PS8: Encourage and facilitate a wide variety of communication services and providers to serve businesses and citizens within the City, while avoiding adverse impacts to health, land use, environmental resources, or aesthetics which may result from unregulated proliferation of communication facilities.

(General Plan Amendment 997-3 adopted by City Council August 13, 1997.)

Objective PS8.1: Allow a two-tiered review process for communication facilities, to ensure that providers are not unnecessarily delayed on minor projects, while giving the public an opportunity to comment on projects that affect them.

Policy PS8.1.1: Require review of proposals for major communication facilities, including towers, monopoles, or other visually obtrusive facilities, through a public hearing by the Planning Commission.

Policy PS8.1.2: Allow administrative review and approval of minor communication facilities, including stealth antennas on existing structures which are not visually obtrusive, at the discretion of the Planning Director.

Objective PS8.2: Ensure that communication facilities are installed and operated so as to avoid adverse health impacts on residents of the community from electromagnetic radiation, improperly installed or located facilities, or other health and safety hazards.

Policy PS8.2.1: Incorporate applicable FCC standards into the review and approval process for communication facilities.

Policy PS8.2.2: Ensure that the location, design, and construction of communication facilities provide an acceptable level of safety to the public.

Objective PS8.3: Ensure that the installation and operation of communication facilities throughout the City are compatible with existing and planned land uses, and will not cause adverse environmental impacts.

Policy PS8.3.1: Adopt development standards for siting and design of communication facilities which address the following issues: location and co-location; site area; setbacks; height; aesthetics and design; screening; fencing; landscaping; concealment; lighting; and accessory buildings.

Policy PS8.3.2: Review all proposed communication facilities pursuant to the California Environmental Quality Act (CEQA), as applicable.

Objective PS8.4: Ensure that the general public does not bear the cost of providing communication services, that cost recovery for use of public land and infrastructure is commensurate with the benefit provided, and that providers of communication services are treated equitably within the City.

Policy PS8.4.1: Allow public land, buildings, structures, and rights-of-way to be made available for use by communication service providers, provided that fair compensation is paid for their use and that any damage is repaired by the provider.

Policy PS8.4.2: Ensure that applications by communication service providers to use City-owned land or improvements are reviewed with respect to the following issues: fair compensation; conformance with land use, environmental and permitting requirements; encroachment permits and inspections; maintenance; liability; removal and site restoration, or transfer of ownership, if use is discontinued; coordination between affected departments and agencies; and equitable treatment among communication providers.

SECTION 3: IMPLEMENTATION

This section of the Public Services Element contains specific measures for the City to follow in order to achieve the goals and objectives contained in Section 2.

A. Data Collection For Service Providers

The City will cooperate with service providers to provide data needed to analyze available capacities and to estimate the demands of proposed projects. In order to ensure adequate provision of public services and utilities, service capacities and future demand should be identified. With this information, the City and other service providers can evaluate the impacts of new development on existing facilities. Expansions and changes in services should be monitored, as should new developments in adjacent areas that are served by the same service provider.

This program should include the following efforts:

1. Data will be compiled in the Planning Department, with monthly input from other departments and agencies, including coordination between City and county offices.
2. Current data will be maintained on available capacity of public utilities and services to use in evaluating project demands.
3. When necessary, data will be obtained regarding usage rates of current developments and updates on the capacities of services.
4. Data will be maintained on existing and planned development.
5. Master plans for sewers, water, schools, libraries and other facilities will be retained on file for evaluation and monitoring purposes.

B. California Environmental Quality Act (CEQA) Review

Every proposed project will be evaluated according to CEQA prior to approval. The CEQA process ensures that environmental impacts will be mitigated to a level of non-significance with regard to groundwater resources, public services (schools, libraries,

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police protection and fire protection), and public utilities. The CEQA process is discussed further in the Environmental Resources Element of the General Plan.

C. Service Commitment

1. The City will continue to incorporate service commitment requirements into its project review process to ensure the availability of services and utilities to new developments. These written commitments are required for the following services prior to issuance of final maps or building permits:

- a. Water service
- b. Sewer service
- c. Natural gas service
- d. Power
- e. Telephone
- f. Solid waste
- g. Schools
- h. Fire protection
- i. Police protection

2. Service commitment requirements shall include the following:

- a. Master or specific plan developments shall dedicate land and/or coordinate with the appropriate agencies for the provision of services such as fire stations, schools, or libraries if the project causes significant impacts on existing services.
- b. All projects must pay impact fees to ensure provision of adequate services to development.
- c. All relevant service providers shall be notified of pending projects and invited to comment prior to tentative project approval.
- d. Service commitment letters from all relevant utility companies will be required prior to issuance of building permits.

D. Capital Improvement Program

The City will include public facility expansions in its Capital Improvement Program (CIP). The program's priorities shall be coordinated with anticipated developments to ensure that infrastructure and facilities are constructed where and when they are needed.

E. Development Plan Review

The City's development plan review process shall include and/or consider:

1. Coordination with capital improvement projects.
2. Evaluation of available and future capacities of public services and utilities (as facilitated by service capacity monitoring).
3. Review of impacts on groundwater recharge areas.
4. Availability of sewer system capacity.
5. Existence of, or plans for, adequate drainage facilities.
6. Utility line easements and facilities design.
7. Contiguous development.
8. Impacts on libraries, schools, fire and police protection services, and recreation facilities.
9. Landfill site impact and capacity.

F. Master Facility Planning

The City will cooperate in planning for the expansion of public services and utilities that serve the area. The City may recommend programs or measures that will serve the best interests of the City. In addition, the City will promote coordinated infrastructure planning to provide shared corridors for various facilities, to minimize visual and environmental impacts and required easements.

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G. Annexation

The City will pursue the logical annexation of territory that is bounded by Palmdale's City limits, including county islands within the City's developed core and areas within its sphere of influence. This action will create a uniform level of service for all areas, reduce the number of responsible agencies and facilitate service provision. Annexed territories should be encouraged to participate in funding needed to provide adequate infrastructure. The Land Use Element contains further discussion of this program.

H. Water Conservation Programs And Reclamation Techniques

The City will establish the following water conservation programs to help preserve resources in the Planning Area.

1. Assist in developing public awareness programs on groundwater resources and overdrafting, to encourage residents and business in reducing water consumption.
2. Explore use of reclaimed water for irrigating golf courses, median dividers, and parkways.
3. Encourage the use of native local plants and other drought tolerant plants in landscaping throughout the City.
4. Develop a water conservation ordinance including but not limited to the following measures:
 - a. Encouraging the installation of low flush toilets and low flow shower heads in existing residential developments.
 - b. Restricting washing down of sidewalks and driveways.
 - c. Requirements for recycling mechanisms for commercial car washes.
 - d. Encouraging irrigation in the early mornings and late evenings only.
 - e. Encouraging water recycling on construction projects.

5. Develop a xeriscape ordinance.

I. Sewer Master Plan

The City will maintain, update and implement its master plan for the local sewerage system in the Planning Area, and will cooperate with the County Sanitation District in planning for regional sewage facilities. The City, together with the Los Angeles County Sanitation Districts, should monitor sewer line deficiencies and implement programs to retrofit inadequate lines as needed.

J. Master Drainage Plan

The City will maintain and implement the Master Drainage Plan, to provide the City with a comprehensive storm drainage system.

K. Floodplain Standards

The City will review development proposals for compliance with floodplain standards as contained in the Safety Element, to reduce hazards due to flooding.

Residential development will be prohibited in floodplain areas unless the flood hazard has been adequately mitigated.

The capture and utilization of flood waters for groundwater recharge will be explored.

L. Solid Waste Management Plan

The City has adopted a Solid Waste Management Plan to comply with Assembly Bill 939 (AB939), the California Integrated Waste Management Act of 1989. The AB939 Act requires cities to develop plans to divert 25% of all solid waste from landfill disposal by 1995, and a total of 50% by the year 2000. The City of Palmdale's plan includes a Source Reduction and Recycling Element, a Household Hazardous Waste Element, and a siting section which identifies criteria for the location of solid waste landfills, transfer stations, recycling centers and other waste facilities. The City will implement this Plan in all activities related to waste management, and will update the Plan as needed.

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M. Hazardous Waste Management

1. The City will prepare and adopt a hazardous waste management plan to comply with state law.
2. The City will require all proposed developments to:
 - a. Provide a list of all chemicals that will be used in the construction and operation of the project.
 - b. Comply with all existing regulations governing the generation, handling, storage, transport, treatment and disposal of hazardous wastes.
 - c. Identify any hazardous waste existing on a site proposed for development.

N. Coordination With School Districts

City staff will meet regularly with School District representatives to coordinate land use planning and development review with school facility planning, and to create and maintain a shared database for planning and forecasting purposes.

The data base may include but not be limited to the following:

- a. Enrollment histories and projections by school, grade, gender, and race.
- b. Colleges attended by high school seniors.
- c. Current birthrates for projecting five year enrollment.

O. County Coordination

1. The City will annually coordinate service needs with the County Fire Department for fire protection, and the City will annually review the contract with the County Sheriff's Department for police protection services, to assure that adequate facilities and services are available to serve the needs of the Planning Area.

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2. The Fire Department and Sheriff's Department will be invited to participate in the development plan review process to ensure adequacy of services and planning for safety.
3. The City will continue to support mutual aid programs with the Angeles National Forest and the USAF Plant 42 in providing public services to the Planning Area.
4. The City will coordinate long range master planning with Los Angeles County for Fire Department and Sheriff's Department Services.

P. Building Codes

1. The City will continue to strictly enforce building and fire safety codes to minimize hazards and the demand for emergency services.
2. The City will continue to require the provision of fire alarms, fire escapes, and extinguishing systems within all commercial, industrial, and multi-family developments.

Q. Public Awareness Programs

The City will promote public awareness programs to solicit citizen involvement in reducing the demands for public services and utilities. Awareness can lead to voluntary action, support, active participation in programs, and an understanding of community and regional issues that affect the City. These programs may include but not be limited to:

- Fire prevention
- Crime prevention
- Anti-drug campaigns
- Energy conservation
- Water conservation
- Earthquake safety
- Recycling programs
- Educational programs
- Other community projects

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The City will encourage and support neighborhood watch programs, assist in the initial formation of such groups, and coordinate efforts with the Sheriff's Department.

R. Fiscal Analysis

The City will require a fiscal analysis for development projects, if deemed necessary, to determine the costs of providing public services and the needed infrastructure. This requirement would be made part of the development review process, so that appropriate mitigation of fiscal impacts may be established before project approval.

S. Facility Fees And Charges

Facility fees and charges will be imposed on new developments pursuant to City ordinances. Facility fees and charges may be established for developments to pay for the infrastructure and services that will be needed to maintain the project.

T. Provision For Public Financing Of Infrastructure

The City may assist in financing of infrastructure needed to support new development through establishment of special financing districts, where appropriate.

U. Library Master Plan

1. The City will develop a library master plan for construction of additional library facilities, pursuant to adopted City library standards. Additional sites, funding mechanisms, and improvement programs and facilities will be addressed.
2. Reciprocal agreements with the county library system, local colleges and universities will continue to be implemented to provide additional library resources to City residents.

V. Higher Education Opportunities

The City will promote location of a 4 year college or university within the Planning Area.

W. Preschool/Daycare

The development standards contained within the Zoning Ordinance will be designed to promote the location of preschool and daycare facilities within the Planning Area.

X. Community Policing Program

The City will implement the Partners Against Crime program in selected areas, to coordinate activities of various departments and agencies, so as to correct and prevent urban problems. These agencies include but are not limited to the Sheriff's Department, Department of Building & Safety, City Code Enforcement, County Health Department, County Fire Department, and housing rehabilitation programs of both City and County.

Y. Graffiti Task Force

Maintain a Graffiti Task Force to evaluate current needs for graffiti control, and implement programs as they are deemed needed and feasible.

SECTION 4: ISSUES AND OPPORTUNITIES

The Public Services Element establishes a framework for provision of infrastructure and public services to existing and new development in a timely and cost-efficient manner. The Element provides background information on issues and opportunities relative to infrastructure planning, as well as goals, objectives and policies to ensure effective coordination of public service provision with development.

Because of Palmdale's rapid growth and dispersed development pattern, the City faces significant challenges in providing public improvements such as regional drainage and traffic facilities. The City has taken several positive steps in the last few years to meet its goals for provision of infrastructure, including adoption of traffic and drainage impact fees and establishing assessment districts for financing public improvements in certain areas. The City is committed to pursuing all available means of providing adequate services and facilities to meet the community's needs, so as to maintain and enhance the quality of life for its residents.

Effective provision of public services requires coordination on many levels. The City must coordinate master planning efforts with other service providers, including school districts; County fire, water and sanitation districts; independent water purveyors; utility companies; solid waste handlers; regional transportation agencies; and adjacent jurisdictions. In addition, there is a need to provide coordination between various developments within the City, so as to maximize efficient use of construction dollars and capital facilities. Finally, there is a need to coordinate policy decisions within various departments throughout the City and provide consistency between land use planning, capital facilities planning, maintenance and finance decisions. For this reason, the Public Services Element is closely tied to policies within the Land Use, Circulation, Environmental Resources, Safety, and Housing Elements. The Element has been prepared to be consistent with those other elements.

The following information provides background on existing conditions, opportunities and constraints which are addressed in the public service policies contained in Section 2 of this Element.

Public Services

A. Public Service And Infrastructure Issues

In the following sections, existing public services in Palmdale are analyzed with respect to their present conditions, and anticipated needs for future expansion. The City's infrastructure system includes the following components:

1. Water treatment and distribution
2. Sewer collection and treatment
3. Storm drainage and flood control
4. Police protection
5. Fire protection and law enforcement
6. Electric power
7. Natural gas
8. Solid waste disposal
9. Telephone
10. Cable television
11. Libraries
12. Schools
13. Hospitals and medical facilities

1. Water Service

a. Water Supply.

Groundwater is the primary source of water supply in the Palmdale Planning Area, with supplemental water supplied from the State Water Project (California Aqueduct). Three groundwater sub-units are located within the Planning Area. Groundwater movement is generally in a northwesterly direction, from the foothills of the San Gabriel Mountains towards the pumping depression in Lancaster. The location of the three sub-units of the principal (upper) aquifer and the approximate elevation of groundwater surfaces in the spring of 1984 are shown in Exhibit PS-1. Table PS-1 shows approximate depth to groundwater for 10 different locations in the Planning Area, as derived from Exhibit PS-1. Various studies have been conducted to determine the status of the aquifer. The results of these studies provide conflicting views of the extent of the occurrence of overdrafting (or usage of water beyond the rate of natural replenishment). Los Angeles County Waterworks district has provided information which would indicate that groundwater levels are rising; however, other studies identify significant drawdowns.

The City is participating in the funding of a region-wide groundwater study. This effort may provide answers to some basic issues concerning local groundwater.

The California State Water Project conveys water from the Feather River and the Lake Oroville Reservoir in Northern California to areas in Southern California that do not have adequate local sources. Water is conveyed via closed and open aqueducts throughout the state. The California Aqueduct traverses the Planning Area from the northwest to the southeast (see Exhibit PS-1).

TABLE PS-1

DEPTH TO GROUNDWATER

Point on Exhibit PS-1	Groundwater Elevation	Ground Elevation	Depth to Groundwater
1	2150	2585	435
2	2150	2530	380
3	2175	2575	400
4	2175	2516	341
5	2175	2500	325
6	2200	2520	320
7	2200	2540	340
8	2400	2585	185
9	2500	2627	127
10	2600	2719	119

Public Services

The Antelope Valley East Kern (AVEK) Water Agency purchases water from the State Department of Water Resources and provides treated water on a wholesale basis to most local water districts in Palmdale. AVEK serves portions of Kern County, Los Angeles County, and Ventura County. The AVEK service area and transmission lines are delineated in Exhibit PS-2. The agency has a maximum entitlement of 138,400 acre-feet per year from the California Water Project. However, due to the drought conditions which occurred in 1991, only 9,600 acre-feet of water was delivered last year by the State, which is 7 percent of the entitlement.

Since its completion, the state project has provided less than half of AVEK's total entitlement each year. This level of delivery is due to a lack of available water supply, and the lack of capacity in local treatment facilities. At the present time, no additional sources of water are being developed by the State. As a result of drought conditions for the past six years, the maximum entitlement for AVEK from the California Aqueduct was temporarily reduced to a maximum of 39,000 acre-feet for the duration of the drought.

The California Department of Health requires full treatment of raw water received from the State Water Project. For this purpose AVEK has constructed the Quartz Hill and the Eastside Water Treatment Plants. Presently, the Quartz Hill Treatment Plant at 65th Street West and Avenue N can accommodate 65 million gallons daily (mgd) with a potential to expand to 73 mgd. The Eastside plant at 116th Street East and Avenue V-8 is currently working at its planned maximum capacity of 10 mgd, with potential for expansion to 28 mgd in the future when the need arises. The Acton Water Treatment Plant has recently been constructed on a 20 acre site where the California Aqueduct crosses Sierra Highway. The plant can process 4 million gallons of water per day and could upgrade to 8 million gallons per day within the existing site. Water from the plant will serve the needs of Acton residents. The site is within the Palmdale Water District (PWD) service area and PWD has a main feeder one half mile from the site, creating the possibility of interdistrict links for water exchange if needed in the future. The Palmdale Water District water treatment plant was constructed in 1987 for a production rate of 12 mgd and is currently being expanded to a capacity of 30 mgd for the exclusive use of the Palmdale service area. The AVEK plants are committed to service many other areas besides Palmdale.

The City of Palmdale uses some imported water from AVEK and some from the Palmdale Water District. Both have water entitlements from the State Water Project (California Aqueduct). Domestic water for residential and commercial uses in Palmdale is provided by the Los Angeles County Waterworks Districts, Palmdale Water District, and independent water companies. While most companies buy water from AVEK, the Palmdale Water District (PWD) has a direct entitlement of 17,300 acre-feet. from the State Water Project. Exhibit PS-3 shows the service areas of water purveyors in the City and Table PS-2 summarizes their characteristics.

TABLE PS-2

PALMDALE WATER PURVEYORS
1991 Production

Purveyor	Monthly Maximum (million gallons)	Total Annual Water Sold (million gallons)	No. of Service Connections
Public			
L.A. County Waterworks			
Districts 4 and 34	1,100	8,471	29,689
Districts 33, 24, and 27	67	508	2,394
District 38	81	650	3,368
Private			
Palmdale Water District	651.8	5,199.1	22,354
Palm Ranch Irrigation District	53.0	385.0	1,600
Quartz Hill Water District	127.0	991.8	3,500
Little Rock Irrigation District	72.3	503.4	1,152
Mutual Water Companies			
Land Projects	25.3	153.1	423
White Fence Farms	31.7	194.7	400

Source: State Department of Health Services.

Public Services

In addition to the above listed water companies, subdivision projects and private corporations often set up mutual water companies to provide water exclusively to the lots within each project. As with the larger companies, groundwater wells and AVEK are the primary sources of water for smaller companies. These companies include:

- Lancaster Farms Mutual Water Company
- Shadow Acres Mutual Water Company
- Sunnyside Rancho Water Company
- Crestmore Village Water Company
- Deepwell Water Company
- Joshua Acres Mutual Water Company
- Great Western Water Company
- Kebb Company/Green Meadows Water Company
- El Dorado Mutual Water Company
- Westside Park Mutual Water Company
- USAF Plant 42 Water System
- Rockwell International
- Lockheed

These companies serve less than 200 customers each and are regulated by the Los Angeles County Department of Health Services. Water companies serving more than 200 customers are regulated by the State Department of Health Services.

Private wells are also used by a number of residences and businesses, primarily in scattered outlying portions of the Planning Area. In addition, there are private haulers who buy water from the County Waterworks Districts and County of Los Angeles water companies, and distribute the water to households and other uses that do not have water system connections or wells. The exact number of business or residences served by private wells or trucked water is not known, but is estimated to account for less than 1 percent of total water use within the Planning Area.

Buildout of the land use plan will require approximately 129.4 million gallons of water per day or 144,410 acre-feet per year of water. This figure represents 93 percent of the total maximum entitlements of AVEK (138,400 acre-feet) and the Palmdale Water District (17,300 acre-feet). Projected 2010 development will require approximately

72,005 acre-feet of water per year or 46.4 percent of total entitlement. Groundwater resources, which are used primarily to meet the demand, will continue to be overdrafted unless conserve programs are undertaken.

The reliance on groundwater, which predominates among Palmdale water purveyors, may result in continued lowering of the water table. Water from the state project is intended to be supplemental to groundwater sources, and AVEK encourages the use of imported water to help recharge groundwater in the Planning Area. However, since imported water is more expensive, most water companies have been reluctant to use it for either recharge or sale to customers. Groundwater wells continue to be the main source (50 percent) of water supply in Palmdale.

If long-term availability of imported water from the State is reduced, Palmdale will become more reliant on local groundwater sources. Continued overdrafting of groundwater resources could escalate, extraction costs for groundwater. Ensuring an adequate supply of water, given projected growth rates and the potential for drought conditions, may require the City to adopt and enforce water conservation measures.

b. Water Quality.

Government regulations deal with the provision of safe drinking water, as well as an adequate supply. Water quality within the Palmdale Planning Area is regulated by the Lahontan Region of the State Water Quality Board. Presently, groundwater in the area generally meets federal and state standards. A few wells in the rural communities adjacent to Palmdale have been found to contain high amounts of nitrates due to septic tank leakage in the area. The potential for local groundwater contamination has long been a concern of residents, and may increase as more development utilizing septic systems occurs.

Smaller mutual water companies and individual wells are not subject to regular outside testing to ensure quality. There is a concern for public health if smaller mutual water companies become more prevalent and if Los Angeles County Health Department is unable to adequately monitor these wells. Therefore, the City has required connection to a public water system for new development, and will continue to do so.

Existing water services are not available to some of the City's future developments. Wells and water lines do not exist in many of the City's vacant areas. The City will work

Public Services

with developers in exploring available methods of financing water system improvements to ensure an adequate and safe supply of domestic water for all existing and future residents.

2. Sewer Service

Sewer service in the City is provided by the Los Angeles County Sanitation District Nos. 14 and 20. District 20 serves the City's urban core and the northeastern portion of the Planning Area, while District 14 serves the northwestern portion of the Planning Area, Quartz Hill, Lancaster, and private sewage haulers. The USAF Plant 42 has its own sewer system. Information and projections from the County Sanitation Districts are discussed below.

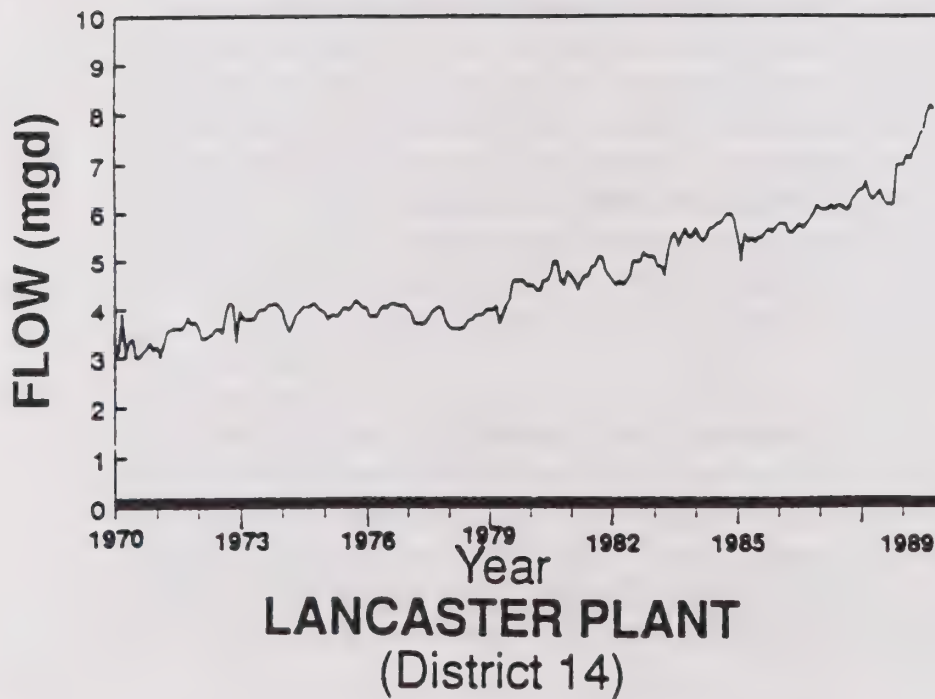
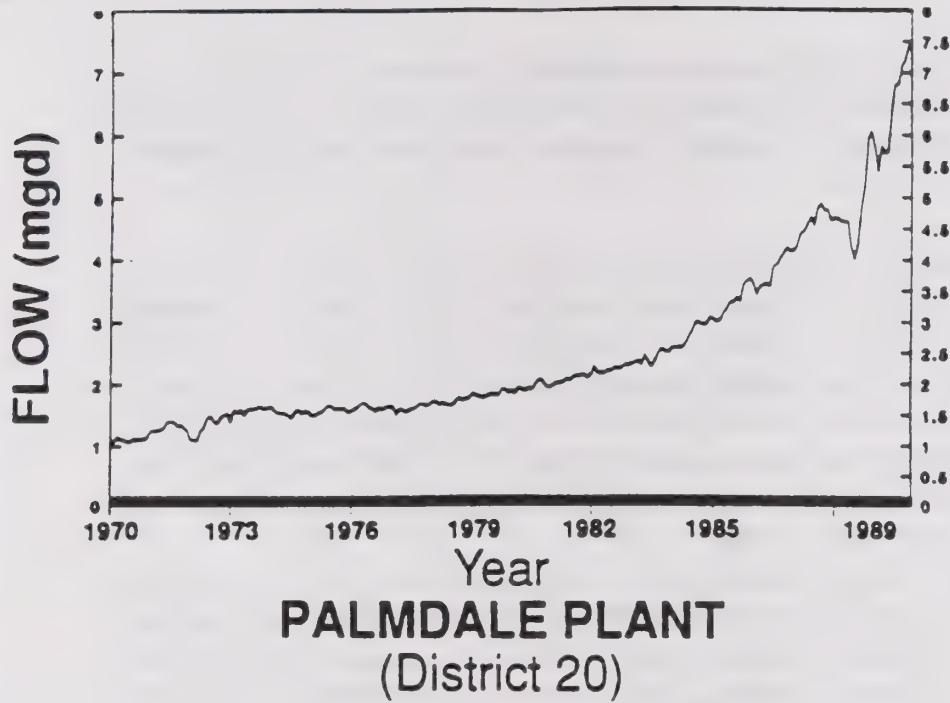
District 20's 200-acre treatment plant is located between Avenue O, Avenue Q, 30th Street East, and 50th Street East. It has an 8 million gallon capacity and processes 6.7 million gallons of sewage per day through a surface aeration process. Exhibit PS-4 shows historical processing rates at the plant. The plant has continuously upgraded its facilities to meet the demand for sewage processing. Environmental documentation has been completed to allow treatment of up to 9.2 million gallons per day at this plant.

The existing facility includes storage tanks, digestors, clarifiers, oxidation ponds, and evaporation-percolation disposal ponds in two adjacent sites. Approximately three dry tons per day of raw sludge and one dry ton per day of digested sludge is produced. Sludge is air-dried and composted onsite. The district has recently signed a contract with the Mira Loma detention camp to utilize some of the district's sludge for bio-gas plants in the camp. Sludge is also available to local agricultural interests for fertilizer. The District disposes of processed wastewater through a contract with the Palmdale Regional Airport to irrigate the surrounding area that is presently used for light agriculture. An alternate method of wastewater disposal will have to be implemented when the airport site develops.

District 14's treatment plant is located on a 350-acre site at 20th Street West and Avenue D, between Sierra Highway and the Antelope Valley Freeway in Lancaster. It processes 7.5 million gallons of sewage per day and has environmental documentation permitting 15.0 million gallons per day by mid 1994 (see Exhibit PS-4). Sewage goes through a surface aeration process, using oxidation ponds.

Historical Sewer Influent Flow Palmdale General Plan

Public Services



No Scale

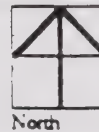


EXHIBIT PS- 4

Public Services

In addition to sewage coming from the district's trunk lines in Lancaster and Quartz Hill, District 14 accepts effluent from private haulers for treatment. There are 9 private companies in the Lancaster/Palmdale area who service households and businesses with private septic tanks and cesspools.

The District 14 plant currently produces 4 dry tons of raw sludge and 2 dry tons of digested sludge (solids) per day. The digested sludge is air dried and composted onsite and is available to local agricultural interests. District 14 reuses wastewater for the irrigation of agricultural fields. The farmer/owner pays for the pumping costs and the installation of pipelines to connect the district's ponds to his field. District 14 is undergoing expansion to increase the plant's capacity to 15.0 million gallons; thus, expansion should be completed in the middle of 1994 to meet the demands of Palmdale, Lancaster, and the surrounding area.

USAF Plant 42, located in the northern portion of Palmdale, has its own sewer system serving the buildings within the plant. Effluent from Plant 42 is treated at facilities located at 25th Street East and Avenue M, which process an average of 150,000 gallons per day with a capacity of 700,000 gallons, peaking at 1 million gallons. Sewage is processed in settling basins for surface aeration and sludge is stockpiled onsite. The treatment plant capacity was planned for maximum development and sewer lines are extended according to the needs of new buildings at the facility.

Exhibit PS-5 shows the location of sewage treatment plants and service areas in the Palmdale Planning Area. The areas outside of the Los Angeles County Sanitation District boundaries are not currently served by a sewer system and thus must rely on septic systems. The County Sanitation District will annex these areas when demand is great enough to warrant the expansion of existing district boundaries. The City requires all new multiple family, commercial, industrial, and single family development on lots of less than one acre to annex to the District and connect to a public sewer system.

Developers are responsible for construction of on-site sewage facilities and for connection to the Los Angeles County Sanitation District sewer trunk lines. Developers pay an annexation fee and the costs of lines needed to serve their development. The connection fees charged for tapping these lines are placed into a special fund which is used to finance future treatment plant expansions. This funding makes most districts self-financing and allows them to expand their services according to the growth pressures of the area. In addition to fee revenues for plant capacity expansion, the City

has assisted in financing sewer line construction through use of assessment financing. For example, in anticipation of development in the southwestern portion of the Planning Area, the City is in the process of creating an assessment district to finance the construction of a sewer truck line to service that area.

Requirements for sewer treatment plant capacity may be calculated at a sewage generation rate of 120 gallons per capita per day. Projections of future sewage production in the City using population forecasts have proved inadequate in the past. Thus, the district conducted growth studies based on additional data. These growth studies project the future demands for wastewater treatment based on historical flow trends. Table PS-3 and Exhibit PS-6 show effluent flow projections for the year 2010, assuming that all future development in the Planning Area is served.

Buildout of the land use plan will generate approximately 123.1 million gallons of sewage per day. The Sanitation District considers future expansion to serve buildout of the area, but actively plans expansion for the next 10 to 20 year period. District 14 will expand from 10.0 mgd to 15.0 mgd and District 20 from 8.0 mgd to 9.2 mgd, on line by mid-1992. These expanded capacities will enable the City to meet existing demands for sewage treatment and will be adequate for several years. However, significant expansion (new technology, additional plants) will be required to handle long-term growth in the Antelope Valley. Expansions will proceed according to growth trends, with the connection fee program financing the expansions.

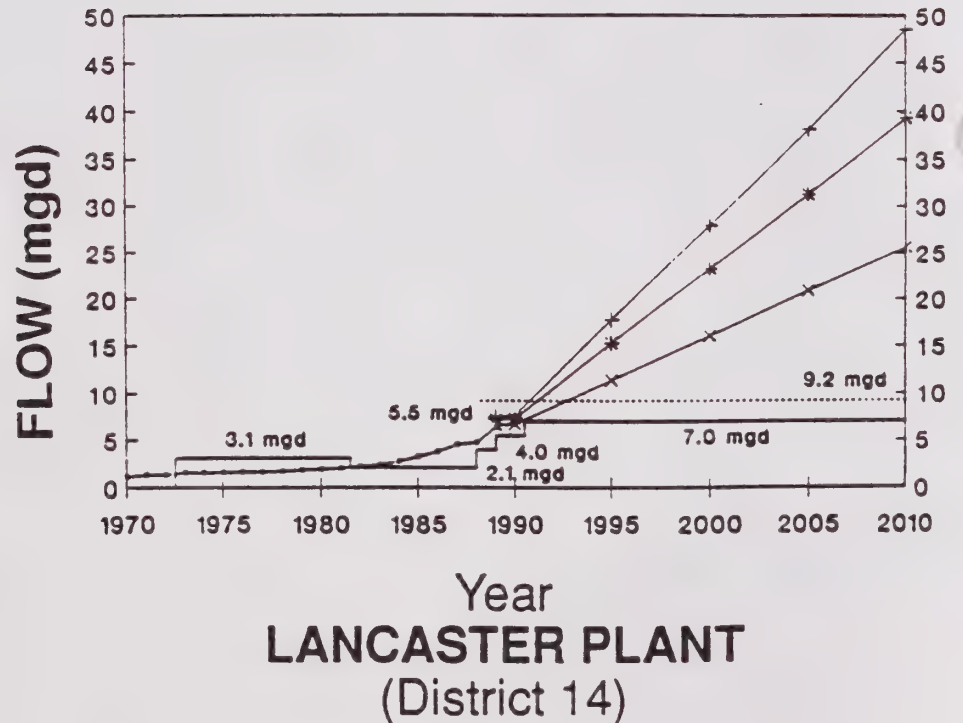
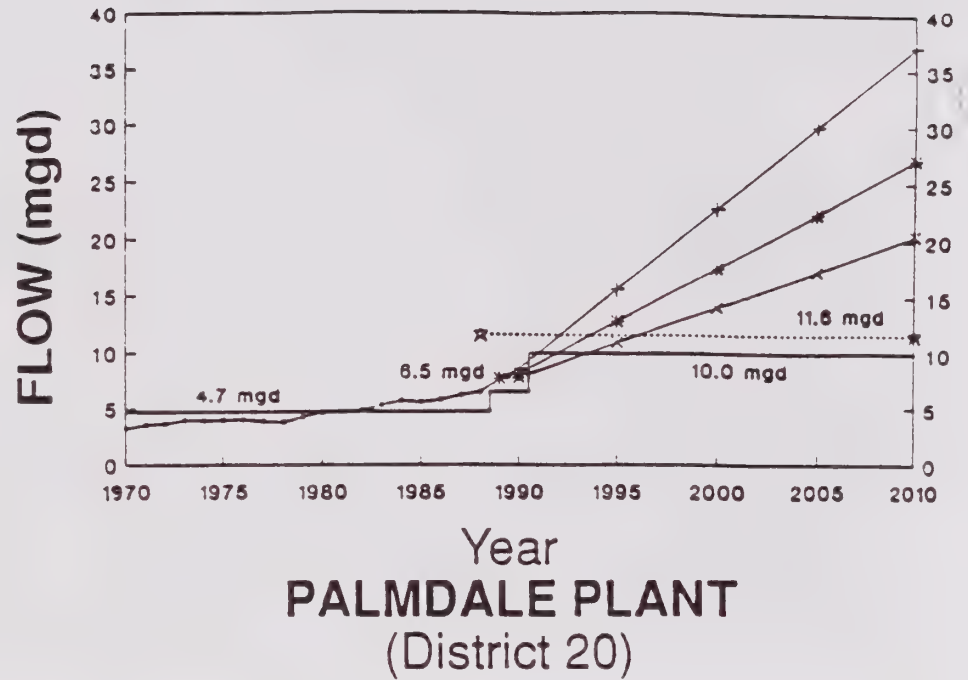
TABLE PS-3

ANTELOPE VALLEY FLOW PROJECTION

	<u>District 20</u>	<u>District 14</u>	<u>Total Flow (mgd)</u>
Current Capacity	8.0	6.5	14.5
Planned Expansion	9.2	10.0	19.2
2010 Projections:			
12-month regression	50.0	37.0	87.0
24-month regression	40.0	27.0	67.0
36-month regression	26.0	21.0	47.0

Source: Los Angeles County Sanitation Districts.

Sewer Flow Projections Palmdale General Plan



Legend

—	historical flow
+	12 mo. regression
*	24 mo. " "
x	36 mo. " "
—	permitted capacity
.....	Env. documentation

Source: Los Angeles County Sanitation Districts

Adopted by City Council
1/25/93

PS-39

No Scale

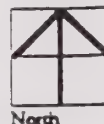


EXHIBIT PS-A

The compatibility of adjacent uses to sewage treatment plant sites and distribution networks could impact expansion plans. The present sewer treatment system is a land intensive operation which utilizes oxidation ponds and stockpiles sludge onsite. When the City builds out, this process could raise concerns for public health and land costs. New technology may provide treatment processes which afford water reuse, sludge utilization, and streamlined operations, and will be a higher priority as the City develops. However, these facilities are critical to Palmdale's continued growth and viability, and must be protected from encroachment by incompatible uses which could impact their operations.

3. Storm Drainage

The major existing drainage courses in the Planning Area are described below.

- Amargosa Creek - This creek collects runoff from the northern face of the Sierra Pelona Mountains and the southern slope of both Portal and Ritter Ridges. It begins at the mouth of the San Francisquito Canyon, travels the length of Leona Valley and enters Palmdale along Elizabeth Lake Road, in the vicinity of the intersection of 25th Street West and Elizabeth Lake Road.

The creek travels north to Avenue K, where it is divided into two flows. The western flow is concentrated at 20th Street West and Avenue J in a channel constructed for the Antelope Valley Freeway. It continues toward the north, running parallel to the freeway, to a retention basin located near the intersection of Avenue G and 20th Street West in Lancaster. The second flow is diverted to the east of Lancaster, generally following a northerly course between the Southern Pacific Railroad and 10th Street East. It merges with other flood waters at Avenue G.

- Anaverde Creek - This creek collects runoff from the Sierra Pelona Range, and drains easterly through the Anaverde Valley. The creek then flows northerly along Sierra Highway into USAF Plant 42, where it is initially collected in the Lockheed Drainage Channel and then held in the Air Force Retention Basin. Overflow from the retention basin would flow due north along 20th and 30th Streets East and merge with other flood waters at Avenue G.

Public Services

- Little Rock Wash - Little Rock Wash collects runoff from the San Gabriel Mountains in Little Rock Canyon and travels just west of Littlerock through the east side of Palmdale and proposed Palmdale Regional Airport in a northerly direction to Rosamond Dry Lake.
- Big Rock Wash - Big Rock Wash collects runoff from the San Gabriel Mountains in Pallett and Big Rock creeks. Traveling north from Holcomb Ridge through Pearblossom, it is divided by the Alpine, Lovejoy, and Piute Buttes and merges at Avenue E, prior to entering Edwards Air Force Base and Rogers Dry Lake.

Most drainage courses in Palmdale are unimproved, thereby allowing storm water to overflow into adjacent flat areas, contributing to sheet flow. The Rosamond and Rogers dry lakes serve as final destinations of water runoff in the Antelope Valley. Although disastrous floods have not occurred in Palmdale, localized flooding has occurred when rainfall is heavy and prolonged. The City's Master Drainage Plan was adopted in 1989 to provide a long term solution to localized flooding. Retention and detention basins, pipes, and channels will be constructed throughout the City to protect existing and future development from flooding. Approximately \$225 million worth of City improvements are proposed under the Master Drainage Plan. Funding for construction of Master Drainage Plan facilities will come from a variety of sources as specified by the City's Capital Improvements Program, including special assessment districts and drainage impact fees collected from new developments. Depending on the future rate of development, it could take 10 to 20 years to fully implement the Master Drainage Plan.

New development increases impervious surface area and decreases the rate at which runoff percolates into the ground, thus increasing storm runoff to low-lying areas. As an interim flood control measure, the City requires individual development projects to provide flood control lots within their projects which serve as detention basins for storm runoff. During the past several years, the City has required interim flood control basins for all new developments throughout the City. Culverts which carry surface runoff have been constructed at road crossings, and road shoulders have been graded to allow water to flow north toward the valley floor where it can percolate and aid groundwater recharge. In some areas, lined channels safely carry runoff down hillsides, preventing erosion by running water. Unlined channels allow runoff flow to percolate, decreasing the volume of storm water carried to the dry lake beds north of the Planning Area.

Storm drainage facilities in the City consist of both natural and lined channels. In addition to allowing groundwater recharge, natural drainage channels can support significant biological communities. However, these unimproved channels can pose a threat to life and property by the possibility of intermittent floods. A balance between resource protection and public safety must be achieved. Factors influencing decisions on drainage improvements include the cost of improvements and the availability of funding to implement them; the potential use of land use regulations (low density zoning and lot coverage limits) to reduce runoff and exposure of residents to hazards; and the potential use of flood hazard areas for uses compatible with periodic flooding (recreation).

4. Law Enforcement

The City of Palmdale receives police services under contract with the Los Angeles County Sheriff's Department. The unincorporated areas surrounding the City receive law enforcement services from the Sheriff's Department and traffic enforcement services from the California Highway Patrol (CHP). Each agency provides emergency back-up for the other.

Currently there are two new sheriff's stations serving the Antelope Valley, as shown on Exhibit PS-7. An independent sheriff sub-station in Palmdale was completed in early 1992. The sheriff's station in Lancaster has divided its territory, officers, and equipment in order to accommodate the Palmdale station. A goal of the City is to eventually have a full-service sheriff's station located in Palmdale.

The CHP station has 30 uniformed officers and 3 staff personnel handling traffic related activities. The CHP is also involved in accident prevention, school bus safety, motorcycle training, and truck safety.

Los Angeles County Sheriff's Department serves Palmdale, Lancaster and the unincorporated county areas in the Antelope Valley, covering 1800 square miles. There are 213 sworn officers, 21 detectives and 22 staff personnel in the Antelope Valley. The Palmdale station is currently staffed by 65 sworn officers, and 9 staff personnel.

Public Services

Although the number of major crimes reported in the City of Palmdale during 1991 was noted by the State Department of Justice as having risen considerably, the crime rate (crimes per capita) decreased during the same period. Since the total number of crimes did not increase at the same rate as population growth during this period, the overall crime rate decreased from .07 crimes per capita in 1988 to .05 crimes per capita in 1991. Some of this decrease might be attributed to increased visibility of local law enforcement agencies and greater involvement of community watch groups. Table PS-4 shows reported crimes from 1987 to 1991.

Police planning generally assumes 1 to 4 officers per 1,500 population, with ratios decreasing as the population gets larger. In addition to population, projections for police protection consider the area's crime rate, size, resources, and desired level of service. Annual review of the City contract with the Sheriff's Department is conducted to ensure that services will be adequate for City needs. In 1991, the contracted units and services roughly equate to 46 sworn personnel and 6 nonsworn personnel assigned to the City of Palmdale. Special service commitments such as foot beats and sting operations are handled by separate arrangement with the Sheriff's Department.

5. Fire Protection and Prevention

Fire protection services for Palmdale are provided by the Los Angeles County Fire Department. Fire protection services are financed through property tax assessments.

Stations 24, 37, and 131 are currently located within the Palmdale Planning Area. Station 131 is a subunit of station 37. There are five additional stations (Station 84, 114, 129, 92 and 117) that serve the outlying areas. Although United States Air Force Plant 42 is located within the sphere of influence, it maintains its own fire protection staff and equipment, and has a mutual aid agreement with the City. Exhibit PS-8 shows the districts and fire stations which serve the Planning Area. Table PS-5 lists available manpower and equipment at each station.

TABLE PS-4
REPORTED CRIMES

<u>Crime</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Willful Homicide	4	2	5	4
Forcible Rape	24	30	33	40
Robbery	103	115	131	165
Aggravated Assault	472	530	801	701
Burglary	689	868	873	1,027
Motor Vehicle Theft	370	716	682	1,755
Larceny-Theft	1,073	1,436	1,518	554
Arson	22	18	34	24
Total	2,757	3,715	4,077	4,269
Total Population ^a	39,149	45,859	68,842	78,046
Crimes per Capita ^b	0.0704	0.0810	0.0592	0.0547

^a Department of Finance Estimates

^b Total Crimes divided by Total Population

Source: Department of Justice, Bureau of Criminal Statistics

The Los Angeles County Fire Department also receives mutual aid from the U.S. Forest Service. As a part of the Los Angeles County Fire Department, the fire stations in Palmdale are backed up by all manpower and resources of the Department. Fire protection needs in the Planning Area will be met by the entire department's resources, if needed, regardless of the number of firefighters and equipment stationed in the Palmdale area.

Public Services

TABLE PS-5

FIRE PROTECTION PERSONNEL AND EQUIPMENT

	Firefighters	Patrol	Engine	Truck	Squad
<u>Stations in Palmdale</u>					
24: West Avenue P	21	1	1	1	0
37: 38318 9 th Street East	15	0	1	0	1
131: 38318 9 th Street East	9				
<u>Other Stations</u>					
84: 503 Avenue L-14 Quartz Hill	15	1	1	0	1
92: East Avenue V Littlerock	15	1	1	0	1
114: 17021 Elizabeth Lk Rd Leona Valley	9	1	1	0	1
117: Division Street and Avenue H-8 Lancaster	12	1	2	0	0
129: 421 West Avenue M Lancaster	9	0	1	0	0

The fire prevention office located in Lancaster is responsible for reviewing new development applications and building permits to ensure that new construction projects adhere to fire code requirements. The requirements for fire safety in construction include fire retardant materials, water storage tanks, fire hydrants, sprinkler systems, fire alarms, and fire escapes. Fire code requirements vary according to the type of use and construction materials employed. Additionally, fire protection requires a ready source of water for firefighting uses. Fire suppression water flow requirements are calculated together with domestic requirements, to ensure adequate availability of water to meet both domestic and emergency needs.

Staff from the individual fire stations within the Planning Area conduct onsite inspections of new construction, as well as annual inspections of existing structures, to ensure compliance with the fire code. Additionally, the fire protection office conducts information programs for the community on fire awareness and protection.

In order to adequately serve the growing population, additional fire stations will be required. New fire stations will be located in the areas with the greatest amount of development, as the need for additional fire service is determined by the Los Angeles County Fire Department. There is one fire station proposed for the Ritter Ranch area and a second station within the City Ranch area, along with fire suppression personnel and equipment. Other future expansions of fire protection facilities will be coordinated with the Los Angeles County Fire Department.

6. Electric Power

The Southern California Edison Company (SCE) provides electricity to a 50,000 square mile region, of which the Antelope Valley is a part. Its service area extends to Bishop on the north, Nevada on the east, Orange County on the south, and Santa Barbara on the west. Smaller electric companies exist within these boundaries as well.

Currently, approximately 70 percent of SCE electricity is self-generated. The company's electric power sources include natural gas, low sulfur oil, the San Onofre nuclear generating plant near San Diego and hydroelectric power plants in the San Joaquin Valley. The remaining 30 percent of SCE's electric power is purchased from other power companies in the region and outside the state. These sources include a Utah coal-burning facility; hydroelectric systems in the Sierra Nevadas, Oregon, and Washington; fossil fuel-burning plants in Ventura, Redondo Beach, and Long Beach; wind farms in the Tehachapi Mountains; pumping plants along the California Aqueduct; and solar energy plants near Barstow.

Because of fluctuating energy demands, utility companies are interconnected and supply each other with electricity when their resources exceed local demand. Also, SCE's local sources are fed to a larger source to provide continuity of service. All energy captured is fed from the Edison "grid system" to individual users, ensuring that service is not interrupted in case of generator failure.

Public Services

The Palmdale Planning Area is served by SCE from its Vincent Substation. Major transmission lines traverse the southwestern section of the Planning Area (see Exhibit PS-9) from the Vincent Substation to the Gorman and Antelope substations. Currently, usage at the Vincent substation is 1.5 billion kWh annually. The breakdown of usage by type of user for the Palmdale area in 1991 is presented in Table PS-6.

According to Edison, the increase in demand for electric usage in terms of net meter gain (number of meters installed minus meters taken out) averages about 9 percent rate of growth per year. This trend is expected to continue through 1992. From 1993 to 1995, Edison expects net meter gain is expected to rise slightly to 10 percent per year.

Improvement plans to meet this increased demand include the upgrade of conductors, extension of lines, and replacement of poles. Plans for expansion also include a new substation south of Palmdale in the general vicinity of the existing Vincent substation.

TABLE PS-6
ELECTRIC POWER COSUMPTION
(Palmdale, 1991)

<u>Type of User</u>	<u>Annual Usage in kWh</u>	<u>Percent</u>
Agricultural	2.1 million	0.6
Residential	125.3 million	35.4
Commercial	70.2 million	19.8
Industrial	99.2 million	28.1
Public Agency	54.9 million	15.5
Public Lighting	<u>2.0 million</u>	<u>0.6</u>
Total	353.7 million	100.0

Source: Southern California Edison, 1992

Additional electric power needs for the immediate future will not significantly affect Palmdale. SCE will continue to expand in conjunction with increasing electrical demands. No additional substations or distribution stations, aside from the one planned

for the area, are proposed. Provided that planned facilities expansion are constructed, Southern California Edison Company will have adequate electrical power available to meet the community's long term needs.

The Public Utilities Commission (PUC) regulates energy sources, plant sites, line locations and charges, and assures that developments are not denied electric power services. Southern California Edison Company (SCE) provides the initial line extension, and the consumer pays for the remaining length needed to reach his property. Developments proposed far from existing service areas may find the cost of extending electric service to be prohibitive, particularly for small projects.

The compatibility of adjacent uses to utility facilities and transmission lines must be considered in the development review process because of potential risks to health and property. The presence of power line easements and rights-of-way pose constraints to site planning and development. Undergrounding utility lines may be more attractive and lessen the environmental impacts of development, but costs are higher.

7. Natural Gas

The Southern California Gas Company provides natural gas to most areas in Southern California, including the Antelope Valley. The City of Palmdale is within the boundaries of the Foothill distribution division and the North Basin transmission division. The Southern California Gas Company serves domestic and commercial uses in the Planning Area with about 28,000 customers. The average consumption to single-family units is 1,095 therms per year. Industrial and commercial loads vary depending on the type of equipment used and the type of business. The maintenance and operation of gas distribution facilities are regulated by the Public Utilities Commission with standards for public safety and fair practices.

In remote areas where gas lines do not exist, the extension of gas mains depended on the demand and willingness of property owners to pay for the needed connecting lines. Rules and tariff schedules are set up by the Public Utilities Commission to regulate such service extensions. In outlying rural areas, propane is used as a substitute until the demand for natural gas connections is great enough to warrant installation of lines. Southern California Gas Company will have adequate natural gas available to meet the community's long term needs, as long as main line extensions are constructed concurrent with development.

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8. Solid Waste Disposal

The City currently issues permits to up to six disposal companies for commercial/industrial solid waste disposal. Presently, Waste Management, Blue Barrel Disposal, Antelope Valley Rubbish, Foothill Rubbish, G.I. Rubbish, and Larey Rubbish Pick-up Service may set their own rates and compete for commercial/industrial customers. The commercial/industrial rubbish haulers utilize both the Antelope Valley Landfill and the Lancaster Landfill (Waste Management).

Residential solid waste disposal in Palmdale is provided in the City by franchise contract with the Palmdale Disposal Company at the Antelope Valley Landfill located at 1200 W. City Ranch Road in Palmdale. The franchise agreement sets residential pick-up rates and establishes standards for service.

The Antelope Valley Landfill has served residential and commercial establishments in the City since 1955 (see Exhibit PS-10). The site currently covers approximately 65 acres of land with approximately 57 acres used for the landfill; this portion of the landfill is expected to reach capacity in the mid 1990's. As of July 1990, the landfill had a remaining capacity estimated at 5 million cubic yards. The company has recently received approval from the County to expand to an adjacent 75 acre lot which will increase the landfill's present capacity to about 105 million tons of solid waste. The landfill accepts some loads from surrounding areas in the Antelope Valley but does not accept liquid waste and sludge. The Landfill is not approved for disposal of hazardous materials.

In Palmdale alone, approximately 28,000 households and commercial businesses are served by the landfill, aside from private haulers who are charged a fee according to the type and volume of refuse brought in.

Solid waste generation forecasts for the City of Palmdale were prepared as part of the Integrated Waste Management Plan in October, 1991. Table PS-7 lists generation forecasts by year through 2005.

The forecast solid waste generation listed in Table PS-7 is a pre-program projection which does not assume successful source reduction or recycling. The City's recently adopted Integrated Waste Management Plan authorizes a City-wide plan to recycle up to 25 percent of all solid waste generation by 1995 and 50 percent by the year 2000. If

the City is successful in its recycling programs, 2005 waste generation would only be 95,958 tons. If source reduction (recycling) programs meet their goals, the Antelope Valley Landfill will have adequate capacity to meet the City's needs beyond the year 2010. If the City is not successful in its source reduction efforts, additional solid waste disposal site could be needed within the life of this plan.

TABLE PS-7

WASTE GENERATION FORECASTS
(tons per year)

<u>Year</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Other</u>	<u>Total</u>
1990	47,124	23,847	64,768	9,125	144,864
1991	48,808	24,699	64,768	9,125	147,400
1992	50,491	25,551	64,768	9,125	149,935
1993	52,175	26,403	64,768	9,125	152,471
1994	53,858	27,255	64,768	9,125	155,006
1995	55,542	28,107	64,768	9,125	157,542
1996	57,225	28,959	65,670	9,125	160,979
1997	58,909	29,811	66,572	9,125	164,417
1998	60,593	30,663	67,474	9,125	167,855
1999	62,276	31,515	68,376	9,125	171,292
2000	63,960	32,367	69,278	9,125	174,730
2001	65,643	33,219	70,180	9,125	178,167
2002	67,327	34,071	71,082	9,125	181,605
2003	69,010	34,923	71,984	9,125	185,042
2004	70,694	35,774	72,886	9,125	188,479
2005	72,377	36,626	73,788	9,125	191,916

Source: City of Palmdale Integrated Waste Management Plan, October, 1991

Other landfills in the region are starting to reach capacity and thus influencing dumping activities at the Palmdale site. Waste Management operates a landfill in Lancaster, but it does not have the capacity to handle the future waste generation demands of its own service area. If the Lancaster site closes, the Antelope Valley landfill may have to

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serve a larger area, reducing its long-term capacity. In addition, the fee structure for waste disposal influences the decision of private haulers to dump in Palmdale rather than another site. If the fees are comparatively lower, more private haulers and disposal companies may use the Palmdale landfill and fill the site faster. If all other landfills are full, haulers may divert solid wastes to the Palmdale site as long as it continues to accept private haulers.

A variety of techniques can be employed to assure the long term viability of the Landfill. The City and the landfill operators should monitor such issues as compatibility of proposed adjacent land uses, environmental impacts, aesthetics and disposal practices. Unless well managed, landfills can create noise, dust, and odors, and seepage of waste can contaminate groundwater sources. Prudent solid waste disposal management techniques at the landfill can improve economic returns, and may increase the capacity and life of the landfill site.

9. Telephone Systems

Pacific Bell provides telephone service to almost 90 percent of the Palmdale Planning Area, including a majority of the 34,600 residential and 4,378 business customers in the exchange area. General Telephone serves approximately 2,500 residential customers in the Quartz Hill area, the Rancho Vista area and the northern part of the City between Avenue M and Avenue L, and no business customers. Exhibit PS-11 shows each company's service area. MCI cable lines run parallel to and along the California Aqueduct, south and southwest of the City.

Telephone service is provided based on the availability of existing lines. Where lines do not exist, telephone connections will be provided if the customer agrees to pay for the costs of extending the lines. User fees are regulated by the Public Utilities Commission. Developers must pay for the extension of existing lines to serve their developments, and the cost of line extensions is determined by the number of lots served. Individual extensions are often costly or infeasible. Contiguous growth may reduce the amount consumers have to pay for service connections.

The boundaries between the two companies (Pacific Bell and General Telephone) are not rigid. If development occurs in an area which is served by one company but extending service from the other company would be cheaper, the customer could arrange for a foreign exchange. Projections for service connection are made on a regional level and are determined by population growth and business development.

With facility expansion and line extensions, Pacific Bell and General Telephone will be able to adequately serve the long term development proposed under the General Plan.

10. Cable

Cable television is an information and entertainment source. Most residential subdivisions provide cable connections through arrangements with local companies. Presently, Jones Intercable (WGN Electronics) services most of the Palmdale area. Aside from such basic cable service as stations from Los Angeles and the Cable News Network, the company offers sports and movie channels. There are 16,655 active customers in Palmdale, and 55,225 in the entire Antelope Valley. Twenty-two percent of the cables are overhead and 78 percent are underground lines. Cable service areas will be expanded to meet the needs of the community as it develops.

11. Library Services

The Palmdale City Library, built in 1977, is located at the Civic Center on 700 E. Palmdale Boulevard. The library has a 70,516-book collection in a building with a gross floor area of 12,400 square feet. The library offers book-lending privileges, audiovisual materials, periodicals, typewriters, microfiche, maps, braille books, and videos. It contains 79 reader seats and presently accommodates 20.5 full-time equivalent staff.

Standards for library service have been developed by the Wisconsin Department of Public Instruction (Wisconsin Public Library Standards 1988) which are as follows:

- a. The library's site should be readily accessible to all residents; travel time to the library should not exceed 15 minutes one way by car. Where travel times to the library's principal facility exceed these limits, branches or outlets or alternative means of providing access (bookmobiles, books by mail) should be considered.
- b. Quantitative criteria for standard space and service are:
 - 2.5 volumes per capita.
 - 8.5 periodicals per 1,000 population.
 - 0.5 staff per 1,000 population.

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- 5.0 reader's seats per 1,000 population.
- 1.0 parking spaces for every 2 adult seats, supplemented by additional parking space for all meeting rooms and staff.
- 125 square feet per staff for workroom space.
- 10 percent of the gross square footage of the library building should be devoted to storage space.

There is no national standard for library size. The Wisconsin Public Library Standard and current library building practice recommends the determination of overall library size by individual space requirements of the population and book collection. However, a rule of thumb for library size is 0.80 square feet per capita.

In 1991, Palmdale had a population of 78,046; based upon the service level standards cited above, Palmdale currently needs 195,115 books, 663 periodicals, 39 staff persons, 282 reader seats, 3,500 square feet of workroom space, and a 45,181 square foot library to serve the present population. These figures indicate that the City's library facilities have not kept pace with Palmdale's rapid growth. If present trends continue, patrons will increasingly find a lack of materials, seats, and staff. Table PS-8 compares existing facilities with desired service levels and projected needs for 2010 when population is estimated at 220,639 persons.

In addition to the City library, there is a county branch library in Quartz Hill, northwest of the City and another in Littlerock, southeast of the City, as well as one in Lancaster (see Exhibit PS-12). All three libraries are part of the county library system and have reciprocal agreements with the Palmdale Library. Visitors are granted borrowing privileges as long as they live anywhere within Los Angeles County.

Three County bookmobiles operate in the Antelope Valley to serve outlying areas, including the Older American Special Information Service which serves the specialized needs of the elderly. In addition, there is a books-by-mail program which serves the Antelope Valley. This service maintains a 10,000 book collection. In 1989, the program circulated 18,930 materials and registered 551 patrons with only 1 full-time and 2 part-time employees.

TABLE PS-8
LIBRARY FACILITY NEEDS

	<u>Existing</u>	<u>Desired Standard</u>	<u>Projected 2010 Need</u>
Book Volumes	70,516	195,115	433,028
Periodicals	245	663	1,472
Staff	20.5	39	87
Reader Seats	79	282	865
Parking Spaces	--	141	433
Workroom Space (Sq. Ft.)	800	3,500	10,857
Storage Space (Sq. Ft.)	0	4,518	13,857
Library Size (Sq. Ft.)	12,400	45,181	138,569

Pressures on the City to expand library services and adapt to the changing needs brought by population growth are partially mitigated by county libraries. Nonetheless, the City library will need to be expanded to meet the demands of a growing population. In addition to a larger downtown library, the City should establish a west side branch and an east side branch by year 2010. Ultimately buildout of development permitted under the General Plan will require additional branches. The west side branch has been proposed within the Ritter Ranch Specific Plan area. In locating branch libraries, consideration should be given to availability of public transportation, and proximity to other neighborhood service uses such as commercial or civic buildings.

12. Schools

The elementary school, high school, and college districts serving Palmdale are independent agencies, each governed by a Board of Trustees. The Palmdale Planning Area is served by the Palmdale School District, the East Side Union School District, the West Side Union School District, Lancaster School District, Keppel Union School District, Soledad-Agua Dulce School District, Hughes Elizabeth Lakes Union School

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District, the Antelope Valley Union High School District, and the Antelope Valley Community College District.

Elementary Schools

The Palmdale School District serves the central developed core of the City. The district has eleven existing elementary school sites. Chaparral, Desert Rose, Joshua Hills, Manzanita, Mesquite, Ocotillo, Palm Tree, Tamarisk, Tumbleweed, and Yucca are permanent facilities. Summerwind is a temporary facility. There are three Kindergarten through eighth grade (K-8) schools, of which Cactus and Wildflower are permanent sites, and Buena Vista is temporary, and there are two Intermediate (7-8) schools, Juniper and Mesa, both of which are permanent.

The district will operate fourteen schools and have approximately 87 percent of the students on year round schedules in the 1992/93 school year. Three schools are on the Orchard plan and eleven schools are on the 60/15 plan.

Along with the traditional elementary education, the district also offers a resource specialist program, providing classes for children with learning problems, special courses in language and speech, and home and hospital classes.

In April of 1992, the total school enrollment for Palmdale School District was 19,724 students (see Table PS-9). This figure is higher than Lancaster's 10,761 students (although Lancaster had twice as many residents), indicating a larger percentage of young families in Palmdale. Projections of school enrollments through 1995 are presented in Table PS-10. To meet these projections, the district's expansion plans include converting the temporary facilities at Summerwind and Buena Vista into permanent structures by the end of 1993. The Ana Verde site could begin construction in 1993. The district owns sites at: 70th Street East and Avenue S (Intermediate); Rocky Lane and Lisbon Court (K-6); 52nd Street East and Avenue S-4 (K-8); 45th Street and Avenue S-4 (K-6); 37th Street East and Pearblossom Highway (K-6); 25th Street East and Columbine Road (K-6); Division and Rayburn Road (Intermediate); and 40th Street East and Avenue S (K-8).

TABLE PS-9

PALMDALE SCHOOL DISTRICT ENROLLMENT AND STAFF RATIO

<u>Staff</u>	<u>School</u>	<u>Current Enrollment</u>	<u>Staff Ratio</u>
21	YRE Buena Vista	703	20.56
32	YRE Cactus	1,081	31.61
38	YRE Chaparral	1,087	38.14
30	K-5 Desert Rose	843	29.58
40	YRE Joshua Hills	1,174	41.18
32	YRE Manzanita	913	32.04
26	K-5 Mesquite	784	27.51
32	YRE Ocotillo	915	32.11
16	K-5 Palm Tree	464	16.28
21	K-6 Summerwind	595	20.88
28	K-5 Tamarisk	787	27.61
44	YRE Tumbleweed	1,256	44.07
23	YRE Wildflower	782	22.87
31	YRE Yucca	879	30.84
16	6th Sumac	309	15.00
38	7-8 Juniper	975	37.50
41	7-8 Mesa	1,096	42.15

Total 60-15	6,224	Total 60-15 Staff	217.00
Total Orchard	2,566	Total 60-15 Ratio	218.39
Total Traditional	3,473	Total Orchard Staff	76.00
Total 6-8	2,461	Total Orchard Ratio	75.03
Total Dist. 3-10-92	14,705	Total Traditional Staff	121.00
Total Dist. 4-7-92	14,724	Total K-5 Ratio	121.86
Increase/Decrease	19	Total 6-8 Staff	94.65
		Total 6-8 Ratio	94.65

- Notes:
- * At the end of the 1992-1993 school year, Sumac School will be closed.
 - * Traditional Schools (September to June) (Tamarisk and Juniper).
 - * Orchard Schools (Teacher is present year round, 35 students per class, with 1/5 of the students rotating) (Buena Vista, Cactus, and Wildflower).
 - * 60-15 Schools (Teacher and students attend school 60 days and break for 15 days) (Chaparral, Desert Rose, Joshua Hills, Manzanita, Mesquite, Ocotillo, Palm Tree, Summerwind, Tumbleweed, Yucca, Sumac, and Mesa).
 - * Schools will be in transition through the end of the 1992 Summer.
 - * Staff-Ratio is the number of teachers required for current student enrollment figures.

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TABLE PS-10

**PALMDALE SCHOOL DISTRICT
PROJECTED SPRING ENROLLMENTS**

<u>Grade</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
K	2,226	2,441	2,584	2,548	2,499	2,471
1	2,211	2,499	2,632	2,671	2,585	2,508
2	2,072	2,484	2,690	2,718	2,707	2,594
3	1,977	2,345	2,675	2,777	2,755	2,716
4	1,963	2,250	2,535	2,762	2,813	2,764
5	1,866	2,236	2,441	2,622	2,798	2,623
6	1,884	2,139	2,427	2,527	2,659	2807
7	1,722	2,096	2,271	2,457	2,510	2,613
8	1,467	1,938	2,229	2,304	2,441	2,468
K-5	12,315	14,25	15,557	16,098	16,157	13,676
K-6	14,199	16,394	17,984	18,625	18,816	18,483
6-8	5,073	6,173	6,927	7,288	7,610	7,888
7-8	3,189	4,034	4,500	4,761	4,952	5,081
K-8	17,388	20,428	22,484	23,386	23,767	23,564

The Westside Union School District serves most of the western portion of the Planning Area. The district presently has six elementary school sites (Valley View, Del Sur, Leona Valley, Rancho Vista, Cottonwood and Quartz Hill) and one intermediate school (Joe Walker) (Exhibit PS-13). As of March 1992, the District had a total enrollment of 4,634. Currently there are 180 teachers serving the District, yielding a student/teacher ratio of 26:1 (see Table PS-11).

TABLE PS-11

DISTRICT ENROLLMENT
1992

<u>School</u>	<u>Location</u>	<u>Grade</u>	<u>1992 Enrollment</u>	<u>1994 Enrollment</u>
Palmdale School District				
Barrel Springs	37320 37th Street East	K-6	-	521
Buena Vista	37320 37th Street East	K-8	162	1,028
Chaparral	37500 50th Street East	K-6	676	1,198
Desert Rose	37730 27th Street East	K-6	715	1,114
Joshua Hills	3030 Fairfield Avenue	K-6	786	811
Learning Plaza	1330 W Elizabeth Lake Rd	K-8	-	665
Manzanita	38620 33rd Street East	K-6	792	817
Mesquite	37622 43rd Street East	K-6	600	1,006
Ocotillo	38737 Ocotillo School Dr	K-6	646	960
Palm Tree	326 East Avenue R	K-6	428	876
Summer Wind	39360 Summer Wind Drive	K-6	396	737
Tamarisk	1843 East Avenue Q-5	K-6	777	725
Tumbleweed	1100 E. Avenue R-4	K-6	981	1,019
Wildflower	38136 35th Street East	K-8	228	848
Yucca	38440 2nd Street East	K-6	712	756
Cactus	38060 20th Street East	K-8	884	1,114
Mesa	3243 East Avenue R-8	7-8	-	1,454
Juniper	39066 Palm Tree Way	7-8	836	950
Westside Union School District				
Leona Valley	9063 Leona Avenue	K-5	154	135
Neenach	49801 270th St. West, Lancaster	K-5	-	108
Quartz Hill	41820 50th Street West	K-5	941	606
Valley View	3310 W. Avenue L-8	K-5	527	590
Cottonwood	2740 West Avenue P-8	K-5	534	730
Rancho Vista	40641 Peonza Lane	K-5	484	641
Sundown	6151 W. Ave. J-8, Lancaster	K-5	-	377
Del Sur	9023 W. Avenue H,	K-8	-	717
Hillview	40525 Peonza Lane	6-8	-	734
Joe Walker	5623 W. Avenue L-8	6-8	1,189	763

Public Services

TABLE PS-11
(Continued)

<u>School</u>	<u>Location</u>	<u>Grade</u>	<u>1992 Enrollment</u>	<u>1994 Enrollment</u>
Eastside Union School District				
Eastside	6742 E Ave H, Lancaster	K-5	429	400
Tierra Bonita	44820 27th E, Lancaster	K-4	700	905
Gifford C. Cole	6742 E Ave H, Lancaster	5-8	740	840
Keppel Union School District				
Pearblossom	12828 E. Avenue W	K-6	531	490
Lake Los Angeles	16310 E. Avenue Q	K-8	591	545
Alpine	8244 E Pearblossom Hwy	K-6	512	546
Antelope	37237 100th Street East	K-6	348	243
Almondale	9330 East Avenue U	7-8	447	477
Daisy Gibson	9650 E. Palmdale Blvd.	K-6	628	775
Lancaster School District				
Nancy Cory	3540 W. Avenue K-4	K-6	889	996
Joshua	43926 2nd Street East	K-6	990	1,094
Sierra	747 W. Avenue J-12	K-6	860	846
Sunnydale	1233 W. Avenue J-8	K-6	1,014	971
Park View	808 W. Avenue J	7-8	1,132	1,312
Piute	425 E. Avenue H-10	7-8	1,071	1,037
Desert View	155 W. Avenue H-10	K-6	807	752
Linda Verde	44924 5th Street West	K-6	776	740
New Vista	831 E. Avenue K-2	K-6	699	878
Lincoln	1331 E. Avenue J-8	K-6	861	895
Monta Vista	1235 W. Kettering	K-6	975	977
Miraposa	737 W. Avenue H-6	K-6	590	544
Eldorado	361 E. Pondera	K-6	765	824
Lancaster	44044 36th Street West	K-5	373	451
Alternative Education at Parkview		K-8	-	119

TABLE PS-11
(Continued)

<u>School</u>	<u>Location</u>	<u>Grade</u>	<u>1992 Enrollment</u>	<u>1994 Enrollment</u>
Acton-Agua Dulce Unified School District				
High Desert	3710 Antelope Woods Rd.	7-8	328	369
Acton Elementary	32248 Crown Valley Rd.	K-6	836	872
Agua Dulce	11311 Frascati Street	K-6	427	448
Hughes/Elizabeth Lakes Union School District				
Hughes/ Elizabeth Lakes	16633 Elizabeth Lake Rd.	K-8	473	490
Antelope Valley Union High School District				
Palmdale	2137 E. Avenue R	9-12	2,447	2,224
Quartz Hill	6040 W. Avenue L	9-12	2,474	2,265
Antelope Valley	44900 Division Street	9-12	2,883	2,359
Little Rock	10833 E. Avenue R	9-12	1,404	1,808
Highland	39055 25th Street West	9-12	1,996	2,133
Desert Winds	45030 N. 3rd St. East	Cont.	180	563
Continuation				

<u>Proposed Schools</u>	<u>Proposed Location</u>
Acton-Agua Dulce School District	
Meadow Lark Elementary	Soledad Canyon Road
Lancaster School District	
Oasis Elementary (temp)	43244 13th Street East
North East Elementary	Avenue H-8/15th Street East
New Vista Middle School	Avenue K-2/10th Street East
Northwest Elementary	Avenue K-2/22nd Street West
Westside Intermediate	45th Street West/Avenue K
Antelope Valley Union School District	
Lancaster High School	44701 32nd St West, Lancaster
South Valley Continuation	40th St. East/Avenue P-8

Public Services

To meet the needs of the growing population, the Westside School District plans to open three new schools: Nunash (K-5) which is expected to open in fall 1992, Hillview (6-8) which is expected to open January 1993, and Sundown which is still in the planning stage. Each school will be constructed to accommodate 600 students.

The Lancaster School District, primarily serving the City of Lancaster, also serves a small area in the northern central section of Palmdale. It presently has twelve elementary schools; children living on the north side of Palmdale attend Nancy Cory (K-6), Joshua (K-6), Sierra (K-6), Sunnysdale (K-6), Park View (7-8), or New Vista (temporary 7-8). Currently, Park View and Joshua are undergoing reconstruction and three other sites are planned for renovation as funds become available.

The Lancaster School District is experiencing a rapid enrollment growth and, as of March 1992, served 11,812 students. Projected enrollment for the District in 1995 is approximately 15,000 students. There are 447 teachers in the district creating a student/teacher ratio of 26:1. To meet the needs of this population, six sites are in the planning process over the next 5 years: four elementary schools and two intermediate schools. Relocatable classrooms have been used to accommodate the rapid student population growth in the Antelope Valley.

The Keppel Union School District serves the eastern and southeastern sections of the Planning Area and has six schools (Almondale, Alpine, Antelope, Daisy Gibson, Lake Los Angeles, and Pearlblossom). The Almondale, Alpine and Daisy Gibson schools presently serve the Palmdale Planning Area. The February 1992 enrollment in the district was 3,085 students. The 1992 enrollment figures represents 70 percent over facility capacity. The district is planning to expand the Daisy Gibson Intermediate to K-8. The district has 118 teachers and current student/teacher ratio in the district is 25:1.

The Eastside School District serves the northeastern portion of the Planning Area with three schools (Eastside, Tierra Bonita, and Gifford C. Cole Intermediate) that serve 1,869 students. The District serves a small area on the northeast section of Palmdale. Presently, the District is experiencing a growth rate of approximately 20 percent in student population annually with a projected enrollment for 1995 of 3,533 students. To accommodate this growth, existing facilities have been, and will continue to be, renovated and expanded. The District has plans to open a new elementary facility on 27th Street East and Lancaster Boulevard. The new structure will accommodate 360

students and 12 teachers. Currently, there are 80 teachers in the District, yielding a student/teacher ratio of 23:1.

The Soledad-Agua Dulce School District serves the southwest portion of the Planning Area. It has two elementary schools (Acton and Agua Dulce) and one intermediate school (High Desert) in the Acton and Agua Dulce areas. The district experienced approximately 13 percent growth in student population between 1989 and 1990. The enrollment for the fall of 1990 was 1,521 students. The district projects a 1995 enrollment of 2,089 students. Currently, there are 55 teachers in the District, yielding a student/teacher ratio of 26:1.

The Hughes/Elizabeth Lakes Union School District serves Lake Hughes, Lake Elizabeth, and Green Valley. The District maintains one school, Hughes/Elizabeth Lakes (K-8), which served 473 students as of March 1992. Currently, there are 15 teachers in the district yielding a student/teacher ratio of 32:1.

High Schools

The Antelope Valley Union High School District serves the entire Planning Area and has five high schools: Antelope Valley, Highland, Quartz Hill, Littlerock, and Palmdale. In addition, the District operates a special needs high school and Desert Winds, a continuation school. Exhibit PS-14 shows the sites and attendance boundaries of the five high schools. Three high schools (Palmdale, Antelope Valley, and Quartz Hill) were built for a total of 6,110 students, but current enrollment figures are at 7,804. There are 105 relocatable classrooms that hold the excess in school capacity at these campuses (see Table PS-12).

Palmdale High School was built for 1,950 students but the 1992 enrollment is 2,447 students. It has 37 relocatable classrooms onsite, holding 28 students each. State law requires that 30 percent of the teaching stations be relocatable if constructed with state funds after 1987. This requirement allows the schools to readily adapt to fluctuating enrollments.

Construction was recently completed for Highland High School at 25th Street West and Littlerock High School at 110th Street East and Avenue R, both of which opened in 1991. Both schools feature similar structures and are designed to accommodate 2,079 students. Two other high schools are in the planning stages. One will be located in

Public Services

TABLE PS-12

HISTORICAL AND PROJECTED ENROLLMENTS AT ANTELOPE VALLEY COLLEGE

<u>Year</u>	<u>Students</u>	<u>Percent Annual Growth</u>
1981	7,706	--
1984	6,834	-11.3
1985	6,927	1.4
1986	7,730	11.6
1987	7,765	.5
1988	8,263	6.4
1989	8,888	7.6
1990	9,590	7.9
1991	10,090	5.2
1992	10,680	5.8
1993	11,330	6.1
1994	12,360	9.1
1995	13,410	8.5

west Lancaster and another will be located in the vicinity of Avenue S and 60th Street East. Both schools are expected to open by 1996.

13. Hospitals

The Planning Area contains one private hospital, the Palmdale Hospital Medical Center, located at 1212 East Avenue S. The current facility has 123 beds with 400 employees and offers 24-hour emergency services. In 1988, the hospital added a Birth Center for pediatric and obstetric services. Other services include general medicine, intensive care unit, surgery, respiratory therapy, care unit for alcohol and drug dependents, lab services, psychiatric unit, gastroenterology lab, CT scanner, cardiology, physical therapy, radiology, nuclear medicine/ultrasound, and urgent care. A new hospital facility is also proposed on a site north of Avenue P and east of Division Street. The proposed new facility will consist of 120 beds, a 60,000 sq. ft. ambulatory care facility and a related medical office building, and could employ between 500 and 600 staff members.

Other hospitals located in the proximity of the Palmdale Planning Area include Lancaster Community Hospital, High Desert Hospital, and the Antelope Valley Medical Center in Lancaster. The Lancaster Community Hospital is located at 43830 N. 10th Street West. It has 132 beds with 600 full-time and part-time employees and offers most of the services offered at the Palmdale Hospital, along with speech and occupational therapy. In addition, it has a specialized heart center and a laser surgery center.

The High Desert Hospital is a 173 bed facility with 659 employees located at 44855 60th Street West. In addition to general medicine services, High Desert Hospital offers services in oncology, dental, orthopedic, neurosurgery, urology, EENT, and plastic surgery.

Antelope Valley Hospital is located at 1600 W. Avenue J in Lancaster. It is a district facility serving a 1,586 square mile area. It has 317 beds with 1,435 full-time and part-time employees and offers a wide range of services, including a trauma center, a speech care unit, open heart surgery and sexual assault response services. Currently, the hospital is in the process of expanding the Obstetrics Department to provide 80 additional beds.

There are three convalescent hospitals located near the Planning Area which can serve residents of Palmdale: the Antelope Valley and Lancaster Convalescent Hospitals in Lancaster, and the Mayflower Gardens Convalescent Hospital in Quartz Hill.

The adequacy of hospital services is difficult to determine due to the different range of services offered. The distance of users to the facility is only one factor influencing use of a hospital. Doctor referral, price, and quality of service are major considerations for persons requiring health care services.

Hospitals that serve a small area may not be equipped with all the specialized equipment and medical staff that larger establishments have. The feasibility of new hospital ventures depends on the demand for health care services and the economic returns of the investment. The City promotes these facilities to ensure that adequate facilities are available to serve the Planning Area; however, the City has no direct authority to provide health care services.

Public Services

B. Development Considerations

Adequate delivery of public services to present and future residents within the Planning Area will require careful planning, coordination, and fiscal responsibility. Provision of infrastructure and services will be constrained to some degree by the following factors:

1. Development Patterns

Development within the City has dispersed residential neighborhoods over a wide area, leaving vacant areas surrounded by new development. This scattered development pattern makes efficient use of regional infrastructure difficult and increases costs of serving each unit. The policies under Objective PS1.3 encourage infill development which utilizes existing infrastructure, and discourage continued leapfrog development away from the City center into outlying rural areas. Development pressures to urbanize in rural areas are expected to continue, due to lower land costs in these areas. Objective PS1.1 reflects the City's view that development should support itself, with no negative impact upon services being provided to existing City residents. The policies under this objective should apply to long-term maintenance and operation of public facilities, as well as to capital costs. In addition, Policy LU1.1.2 in the Land Use Element promotes infill developments; implementation of this policy could reward infill development, possibly with higher densities or other incentives, to foster a more continuous and cohesive pattern of urban development within the City core area.

2. Fiscal Constraints

Availability of funding is the primary constraint to infrastructure construction and maintenance. Palmdale presently uses a variety of funding methods to finance new infrastructure, including assessment districts, Mello-Roos community facility districts, and impact fees. Each of these methods has advantages and disadvantages, and is useful for different facility types.

The City's drainage, traffic and park impact fees provide a method of charging each new unit for its impact upon the regional system. A drawback of financing infrastructure improvements with developer fees is the need for large expenditures of funds at the time the facility is built, while the fees are collected incrementally over time. It is difficult to collect enough fees to ensure that infrastructure is constructed when the units are built. The City will need to continue to use public financing districts where necessary,

and explore other creative ways of obtaining financing to build public improvements concurrently with new development.

3. Interjurisdictional Coordination

The number of agencies, both public and private, which are in the business of providing public services presents a challenge in terms of coordination. The City is in an ideal position to play a role in facilitating this coordination, since it is the lead agency in approving new development. This type of coordination takes time and City resources; however, a lack of coordination will ultimately require even more time, money and resources to remedy.

4. Environmental Constraints

Environmental constraints to provision of infrastructure may be viewed from different perspectives. On one hand, natural resources needed to support growth must be protected and managed, and the impacts of that growth to the environment must be assessed and mitigated. Water supply and air quality are two natural resources, the availability of which will dictate future development potential in the Antelope Valley.

On the other side, much has been written lately about the additional time and cost incurred by development in California due to the procedural requirements mandated by CEQA. These constraints apply equally to public works projects. For example, while widening of Highway 14 and realignment of Highway 138 have been identified in the General Plan as City goals, these projects may have significant environmental impacts which could delay their construction and add substantial costs. The City will need to carefully weigh its obligation to protect the environment against the need to expand the infrastructure systems necessary to support its planned growth.

5. The Need to Retrofit Infrastructure into Developed Areas

Most of the existing county island areas will be annexed during the life of the General Plan. These areas were originally developed according to county standards and lack many of the infrastructure improvements typically required for urbanized development. Developing programs to fund and construct needed improvements, without financially impacting the City or overburdening the affected property owners, will be the major challenge to provision of adequate infrastructure in these areas.

LANCASTER SUBUNIT




BUTTES SUBUNIT

PEARLAND SUBUNIT

HARD ROCK AREA

HARD ROCK AREA

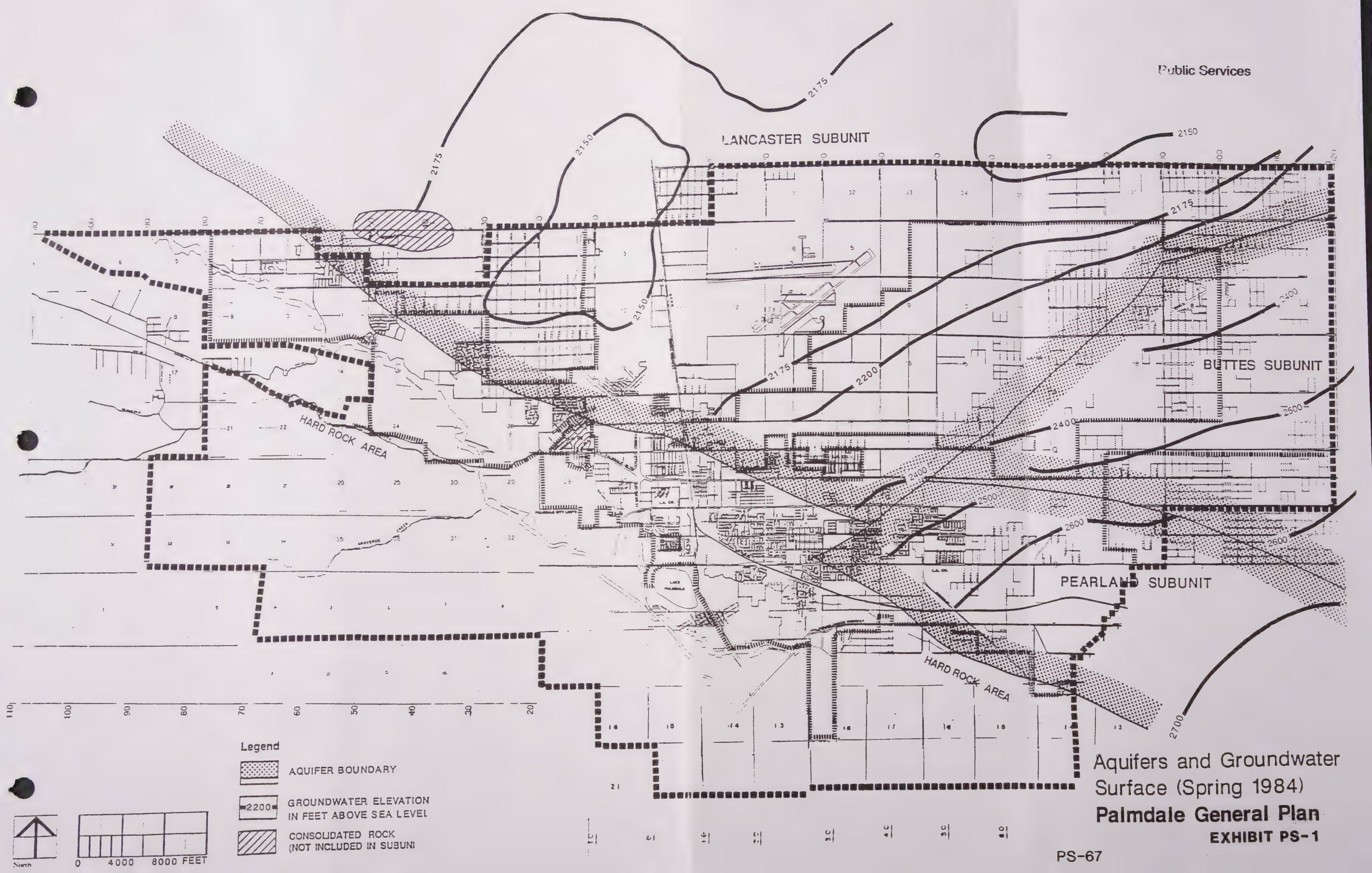
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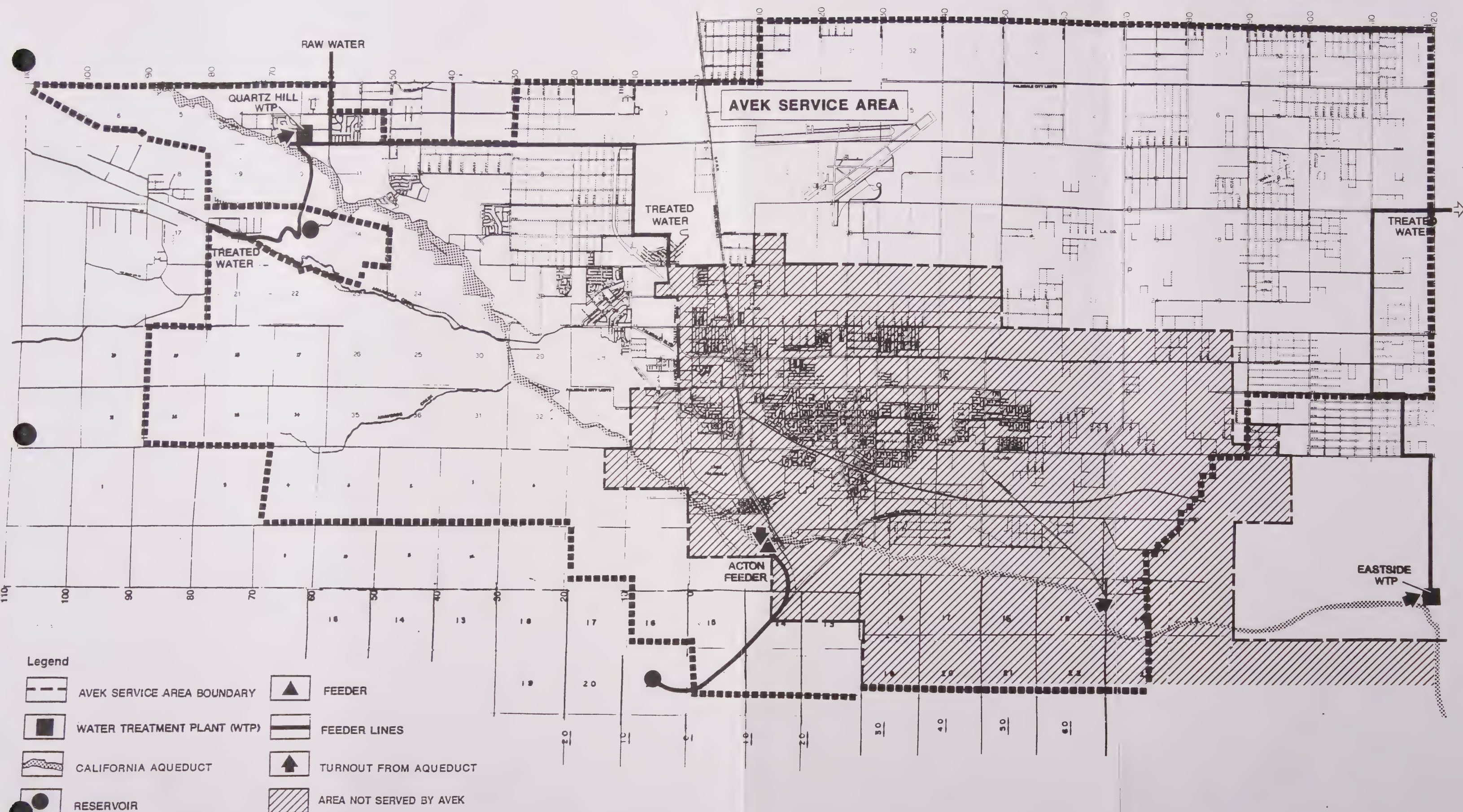
-  AQUIFER BOUNDARY
-  GROUNDWATER ELEVATION IN FEET ABOVE SEA LEVEL
-  CONSOLIDATED ROCK (NOT INCLUDED IN SUBUNIT)

Aquifers and Groundwater Surface (Spring 1984)

Palmdale General Plan

EXHIBIT PS-1



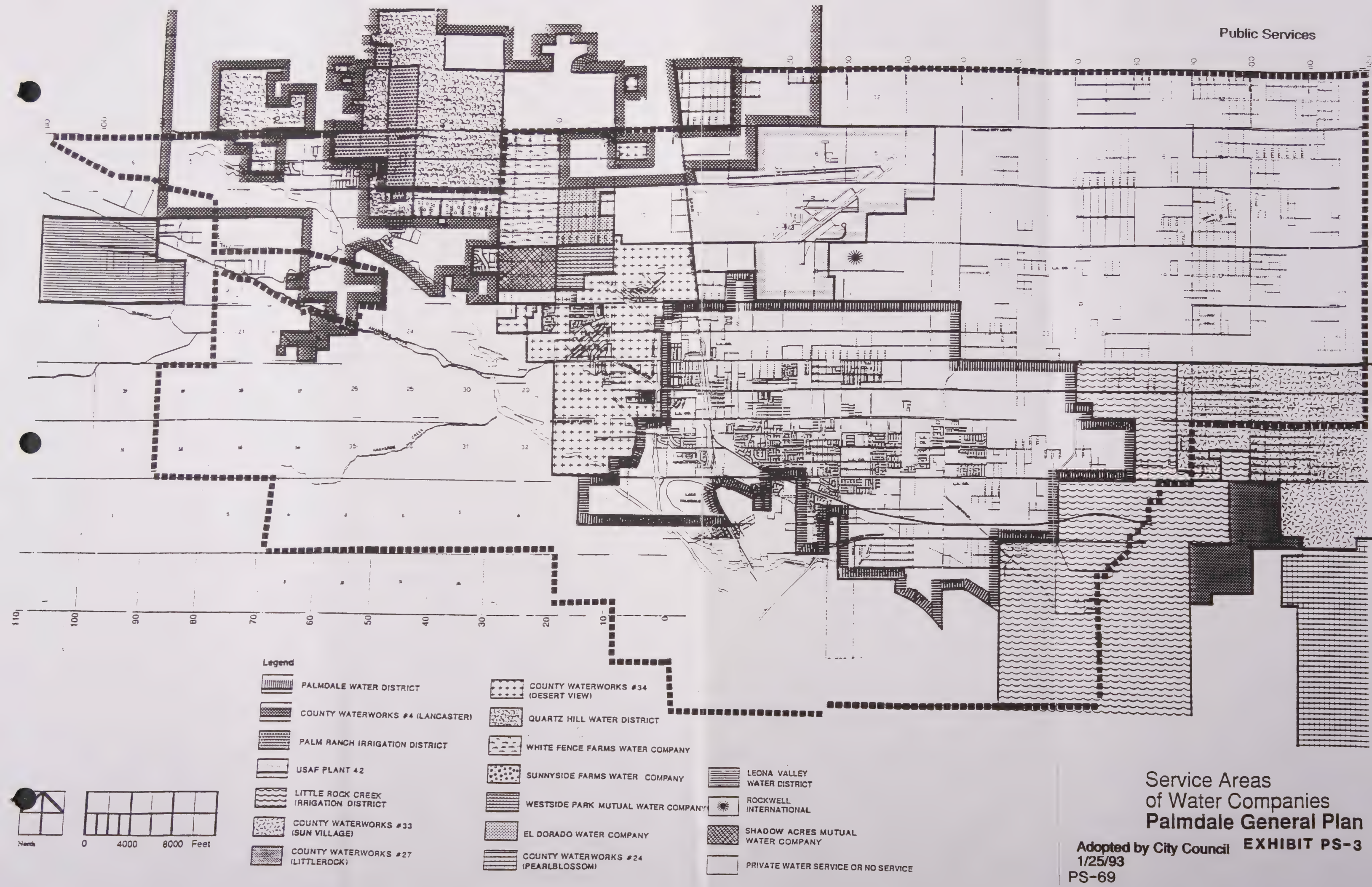


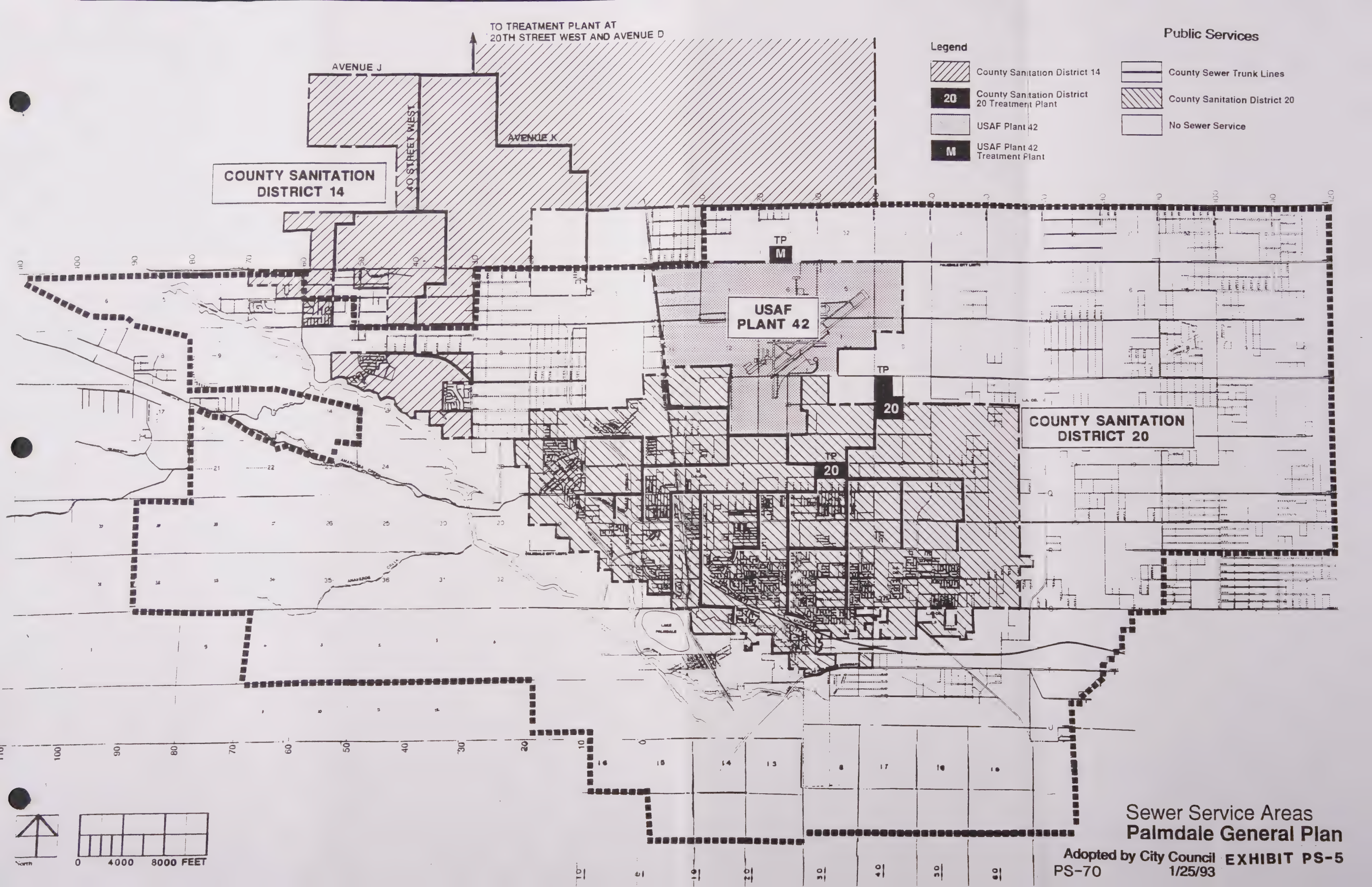
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	AVEK SERVICE AREA BOUNDARY		FEEDER
	WATER TREATMENT PLANT (WTP)		FEEDER LINES
	CALIFORNIA AQUEDUCT		TURNOUT FROM AQUEDUCT
	RESERVOIR		AREA NOT SERVED BY AVEK

0 4000 8000 FEET

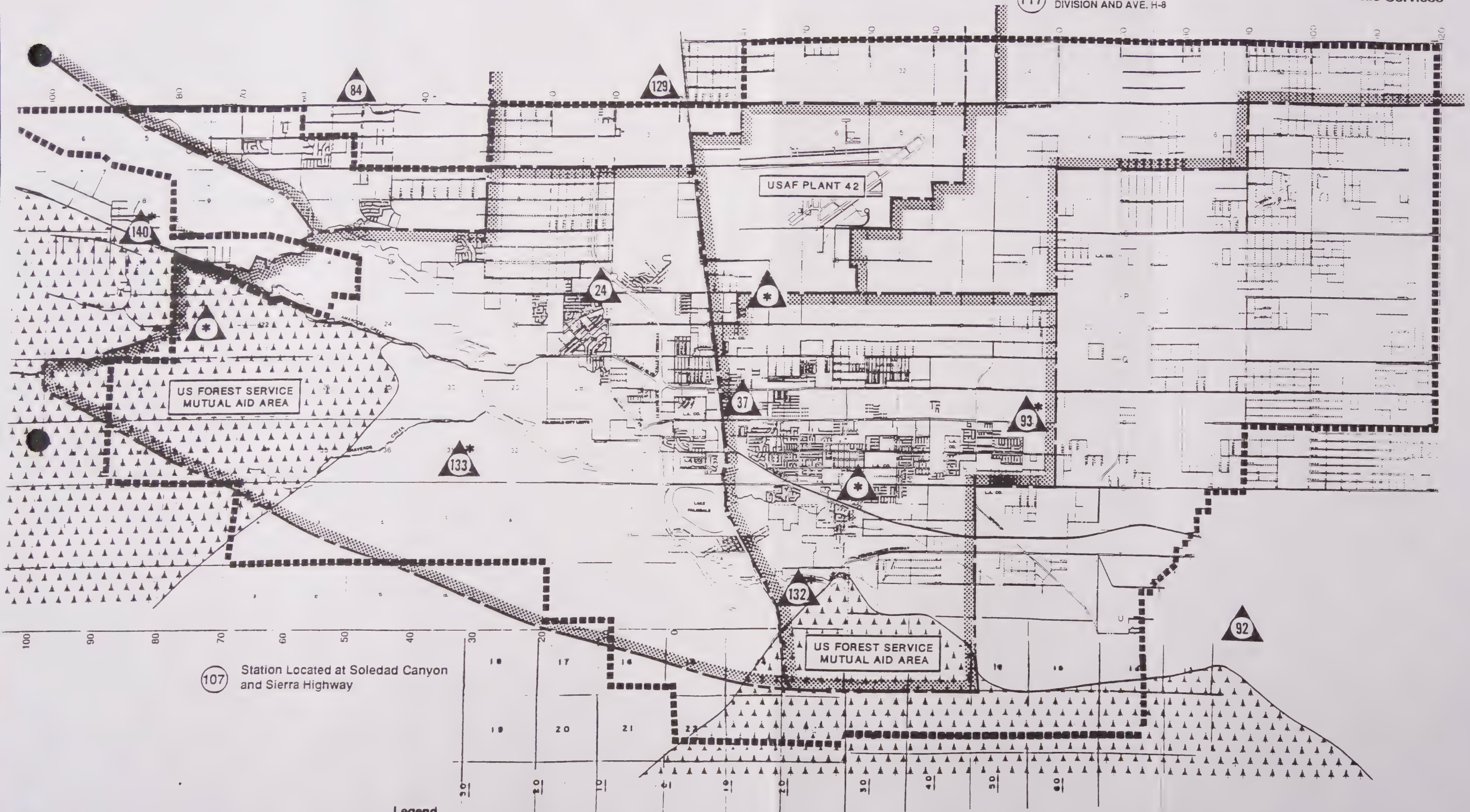
AVEK Service Area
Palmdale General Plan
EXHIBIT PS-2





117 STATION LOCATION AT
DIVISION AND AVE. H-8

Public Services

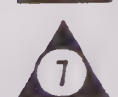


107 Station Located at Soledad Canyon
and Sierra Highway

Legend



INITIAL ACTION AREA BOUNDARIES



COUNTY FIRE STATIONS



ADDITIONAL/TEMPORARY
COUNTY FIRE STATIONS

Fire Station Initial Action Areas

Palmdale General Plan

EXHIBIT PS-8

Adopted by City Council

1/25/93

PS-72

TO ANTELOPE
STATION

Public Services

TO GORMAN
SUBSTATION

TO VALVE STATION 21,
THEN TO VICTORVILLE

TO SYLMAR
SWITCHING STATION

TO ADELANTO
SWITCHING STATION

TO QUIGLEY PRESSURE-
REGULATING &
METERING STATION,
THEN TO NEWHALL

FROM VINCENT
SUBSTATION

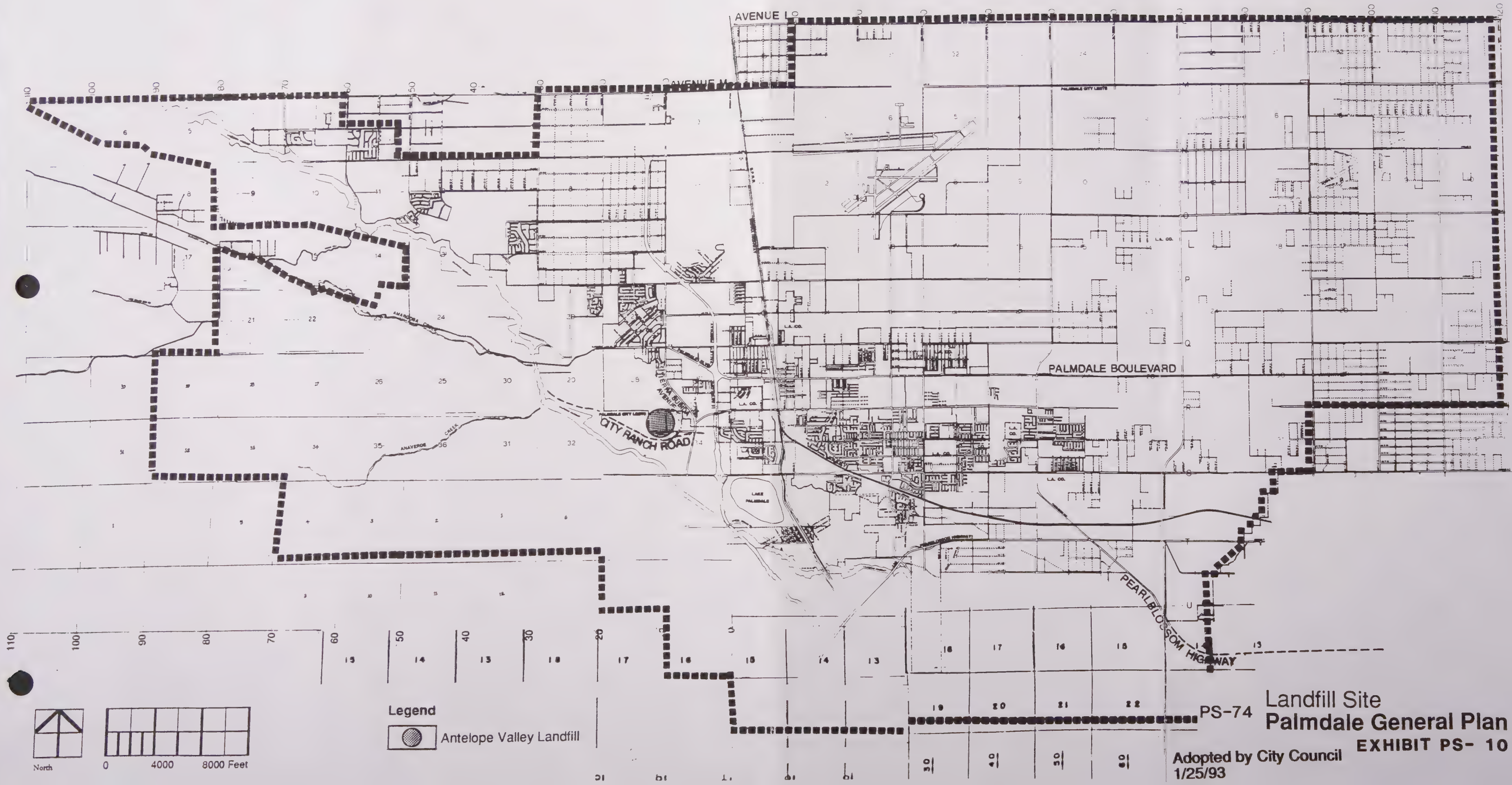
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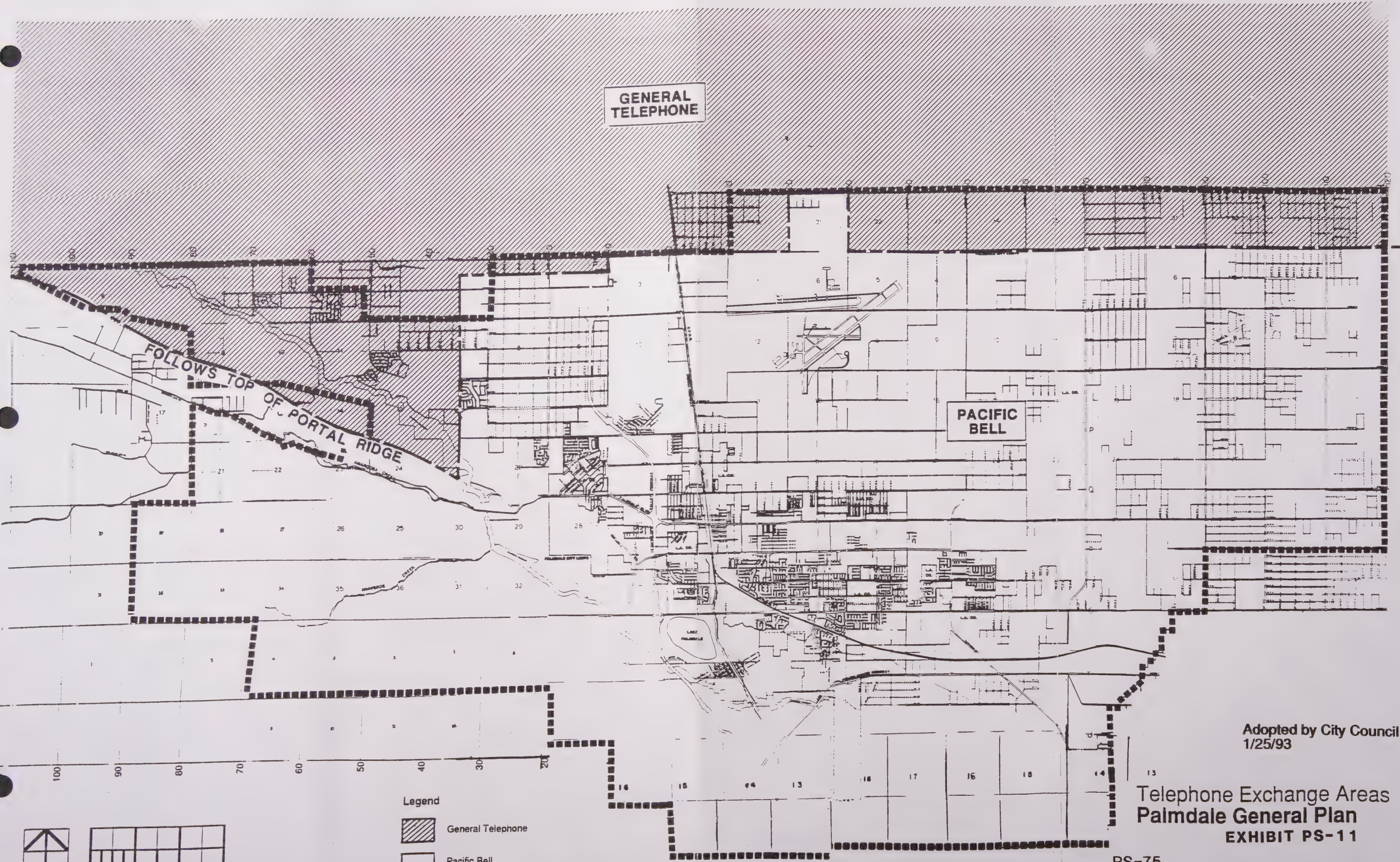
- ○ ○ ○ ○ P.L.S. 30 INCH GAS TRANSMISSION PIPELINE
- ● ● ● ● SCE TRANSMISSION LINES (220 KV AND GREATER)
- ○ ○ ○ ○ L.A. DWP TRANSMISSION LINE

NO SCALE



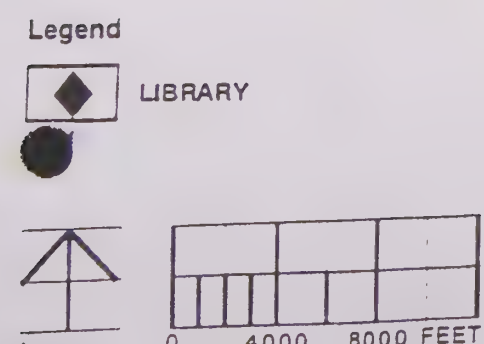
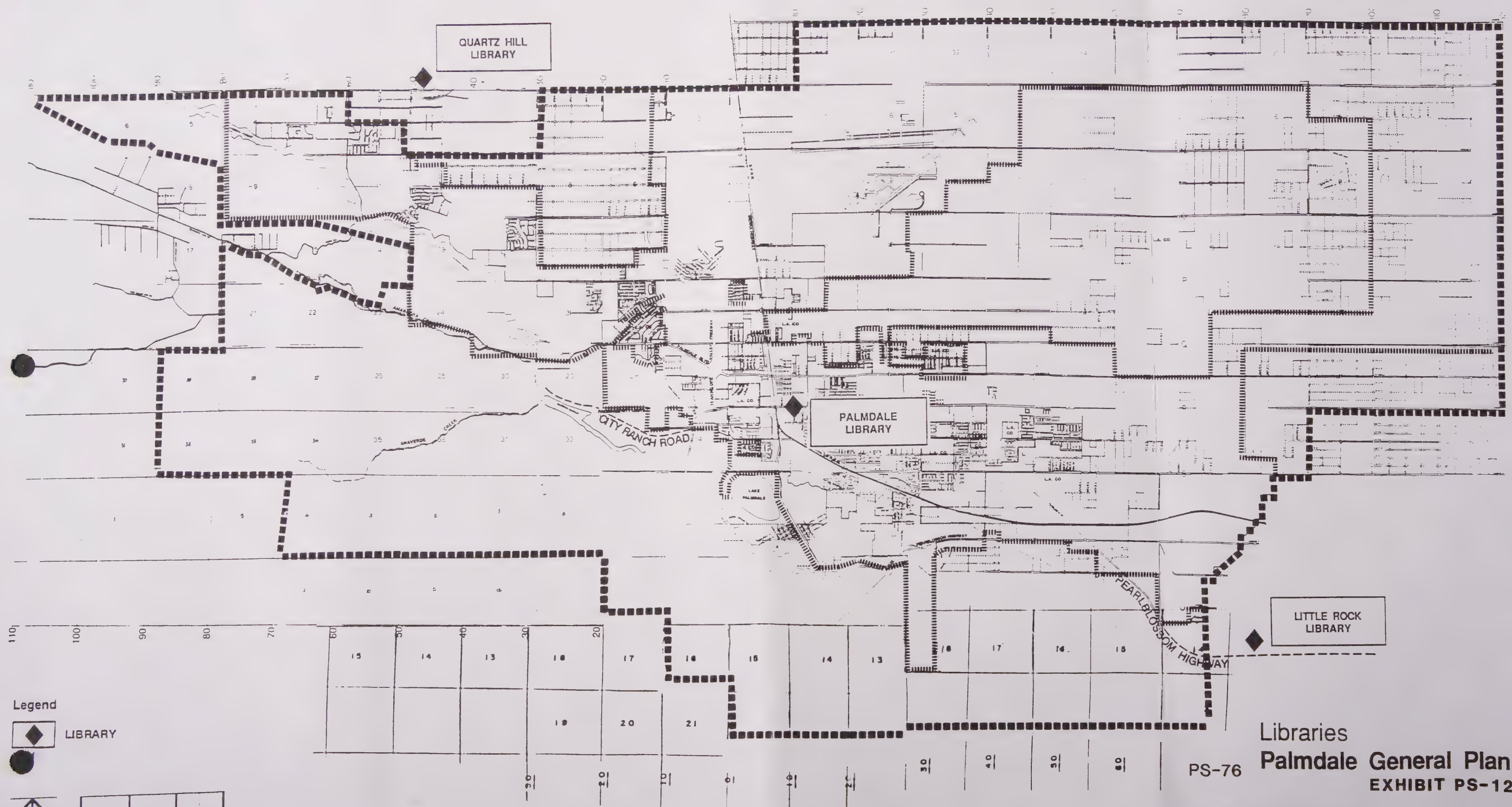
PS-73 Transmission Lines
Palmdale General Plan
Adopted by City Council 1/25/02
EXHIBIT PS-9





Adopted by City Council
1/25/93

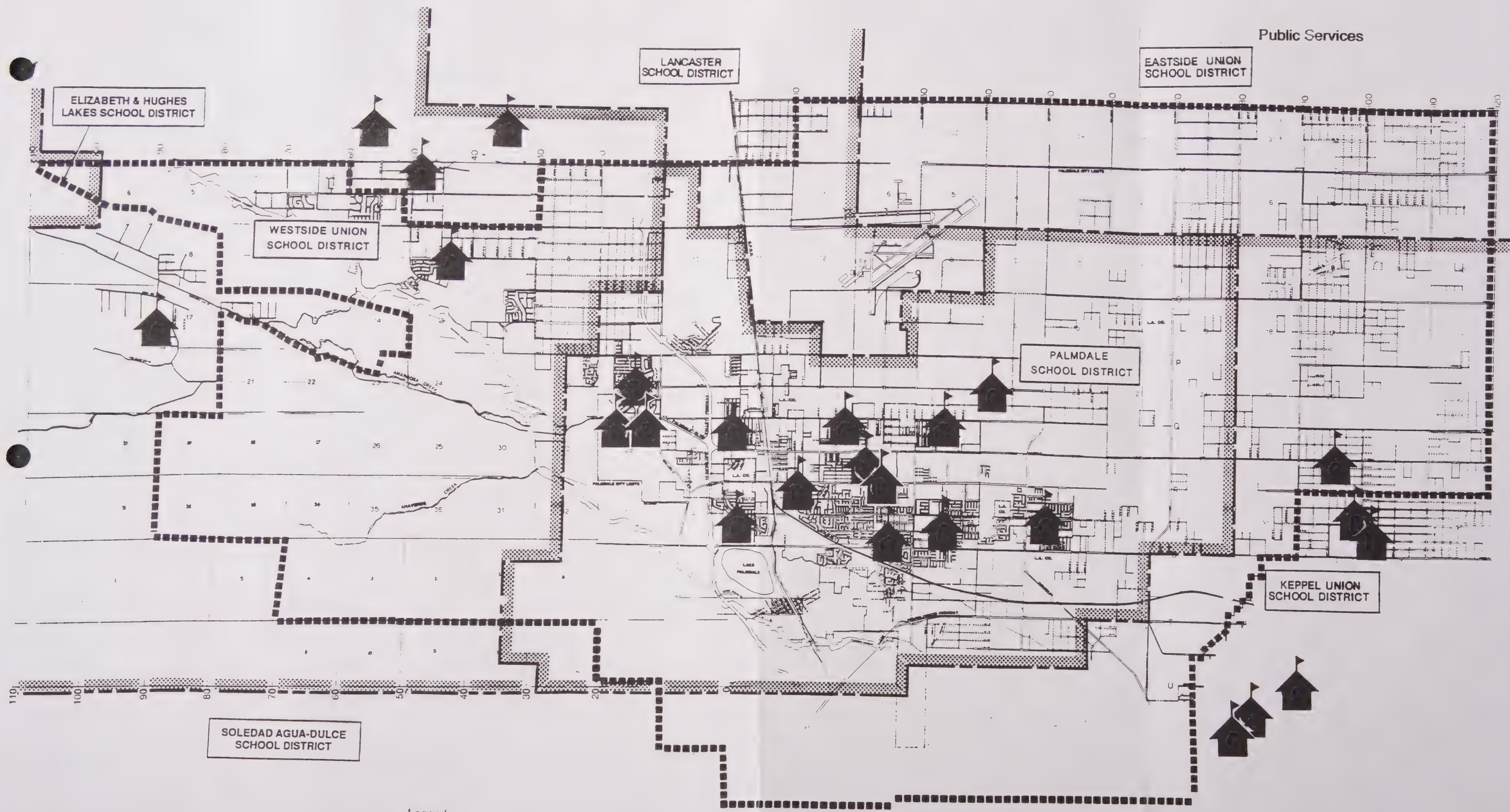
Telephone Exchange Areas
Palmdale General Plan
EXHIBIT PS-11



Libraries
Palmdale General Plan
EXHIBIT PS-12

PS-76

Adopted by City Council
1/25/93



Quartz Hill
High School
Attendance Area

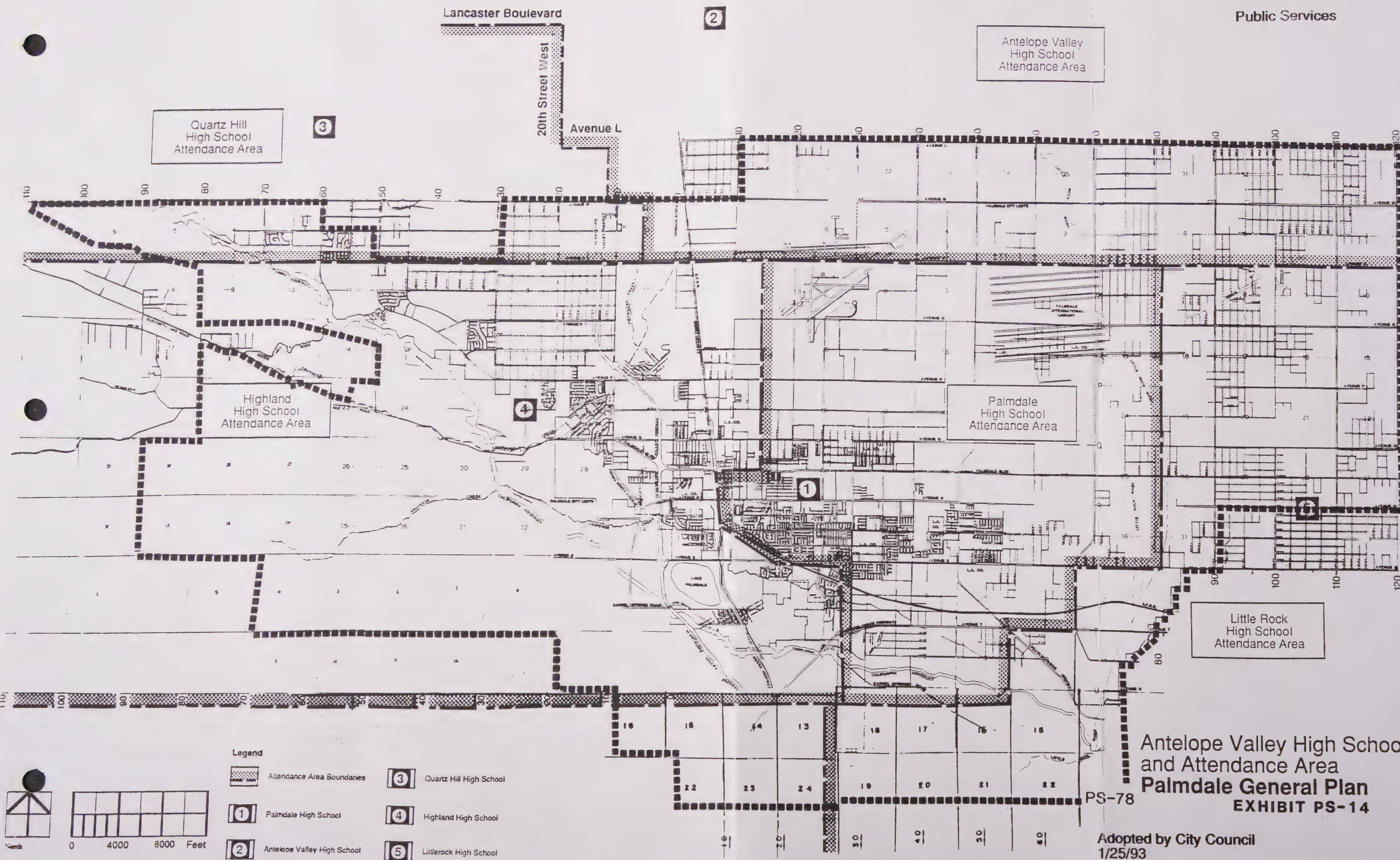
Highland
High School
Attendance Area

Palmdale
High School
Attendance Area

Little Rock
High School
Attendance Area

Antelope Valley High Schools
and Attendance Area
Palmdale General Plan
EXHIBIT PS-14

**Adopted by City Council
1/25/93**





Safety Element

SECTION 1: INTRODUCTION

Natural and man-made disasters result in losses of life and property, economic and social setbacks, and the destruction of the environment. Local governments are charged with the responsibility of protecting their residents from danger and harm. The Safety Element is intended to guide development by reducing the levels of risk posed by natural and man-made hazards within the City and its Planning Area.

Some degree of risk is inevitable since natural disasters cannot be predicted with certainty, and because the knowledge and technology to control man-made risks is constantly evolving. Since the total elimination of risk is not possible, public safety is relative to the degree of risk that people find tolerable. The value of life and property becomes a yardstick for tolerance and the need for governmental action.

The Safety Element presents a plan for minimizing the hazards to public health and safety. It outlines natural and man-made hazards that affect existing and future development, and provides guidelines for protecting residents from injury and death. It identifies present conditions and public concerns, sets policies and standards for improved public safety, and plans for protection from potential disasters. It seeks to minimize physical harm, as well as economic and social disruptions. The goals and objectives of the Safety Element reflect the community's regard for the health and safety of its residents. The Element addresses issues which the entire community believes would require government intervention in order to effectively achieve public safety. The purposes and goals of the other elements go hand-in-hand with the goals of the Safety Element. Together, they will serve as a guide for decision-making by public and private investors and for the future expenditure of public funds.

Specifically, the Safety Element serves the following purposes:

1. As one of the state-mandated elements, it fulfills the requirements of the State Planning and Zoning Law and the regulations in Section 65302(g) of the Government Code of the State of California.
2. The Element informs the public of public safety goals, objectives, and policies of the City for development until 2010. It provides a comprehensive risk management program to serve as a guide for the day-to-day operational decisions of City staff.

Safety

3. The Element evaluates the seismic, flood, geologic, wildfire, and urban fire hazards in the Planning Area, as well as aircraft accident potential, hazardous materials, and crime. It seeks to eliminate or reduce the risks to public safety through planning for the prevention of hazardous situations and for the provision of adequate emergency services.

SECTION 2: GOALS, OBJECTIVES, AND POLICIES

GOAL S1: Minimize danger and damage to public health, safety, and welfare resulting from natural hazards.

Objective S1.1: Review development within or adjacent to geologic hazards, to ensure adequate provisions for public safety.

Policy S1.1.1: Provide copies of geotechnical reports for projects located within the Alquist-Priolo Special Studies Zone, as shown on the Overlay Map, to the State Division of Mines and Geology.

Policy S1.1.2: Assist developers in obtaining necessary technical and policy information regarding seismic hazards.

Policy S1.1.3: Require geotechnical studies, to be reviewed and approved by the City's geologist, for development proposals in areas where geotechnical hazards may be present, and implement the recommendations of those reports as deemed necessary by the City.

Policy S1.1.4: Require appropriate structural setbacks from active fault rupture traces in accordance with Alquist-Priolo standards and as required by the City, based on geotechnical analysis.

Policy S1.1.5: Require structural setbacks or special foundations for structures within potentially active fault zones as determined by the City, based on geotechnical analysis.

Policy S1.1.6: Require special foundations within inactive fault zones if determined necessary by the City.

Policy S1.1.7: Restrict location of utility lines, whether above or below ground, within an appropriate distance from active fault traces, as determined by geotechnical investigation and approved by the City. Utility lines crossing active fault traces should be specifically designed to withstand the expected movement of the earth in these locations. Utility lines as defined here would include, but not be limited to, electricity, water, natural gas and sewer.

Safety

Policy S1.1.8: Require that all structures should meet or exceed state required earthquake resistant design standards.

Policy S1.1.9: Review development proposals located in or immediately adjacent to areas of soil instability, liquefaction areas, and steep slopes to determine if a significant constraint exists and to determine appropriate land use or hazard mitigation methods, and require compliance with any such measures identified.

Policy S1.1.10: Develop and adopt hillside grading standards to minimize the hazards of erosion and slope failure.

Objective S1.2: Minimize hazards associated with flood plains in the area.

Policy S1.2.1: Require that new development shall not be exposed to flood hazards or contribute to an existing flood hazard, in accordance with the City's Floodplain Management Ordinance and related criteria within the City's Engineering Design Standards.

Policy S1.2.2: Require that building foundations be a minimum of one (1) foot above the 100-year flood elevation, unless alternative diversion methods are approved by the City Engineer.

Policy S1.2.3: Require that grading of floodways shall be in a manner which allows for groundwater recharge and protection of projects from flooding.

Policy S1.2.4: All required primary and secondary access and egress routes for all new development should be "dry" access located outside of the 100-year flood plain.

Policy S1.2.5: Consider the operability of natural gas, electric, water and sewer services during the occurrence of flooding in review of project design.

Policy S1.2.6: Require that grading and other methods of water diversion be used to retard water runoff, where appropriate.

Policy S1.2.7: Ensure that storm water drainage is designed for peak flow conditions.

Policy S1.2.8: Ensure that new development complies with floodplain zoning and watershed management regulations.

Policy S1.2.9: Preserve and restore the natural and beneficial values served by floodplains to the extent feasible, consistent with public health, safety and welfare.

Policy S1.2.10: Promote open space and recreational uses in designated flood zones, unless mitigation of the hazard can allow other types of development.

Policy S1.2.11: Implement the City's Master Drainage Plan, through the development review process and capital improvement program.

Policy S1.2.12: Monitor and require continued maintenance of drainage basins throughout the City to ensure maximum flood protection from existing facilities and prevent downstream flood hazards.

Policy S1.2.13: Implement public financing programs where feasible, to provide for required drainage improvements, and coordinate design and construction of flood control improvements with adjacent jurisdictions where appropriate.

Policy S1.3.14: Ensure that development near National Forest lands does not result in increased flows of water or debris on to forest land.

Objective S1.3: Ensure compatible development in areas within or adjacent to natural high fire risk areas (urban-wildland interface), and other high fire risk areas.

Policy S1.3.1: Ensure that structural setbacks from fire-prone vegetation for buildings near the National Forest are maintained in accordance with the standards and regulations established by the National Forest Service. Require that all necessary fire clearances be provided on private (not public) land.

Policy S1.3.2: Encourage dual access, particularly in mountainous and high fire risk areas, on approved all-weather surface roadways.

Safety

Policy S1.3.3: Provide fire-resistant landscaped buffer zones between high risk fire hazard areas and urban development, and restrict access from development into the open space areas during periods of high fire risk.

Policy S1.3.4: Evaluate the need for fire resistant landscape buffer zones for existing developments located in high risk fire hazard areas, and require fuel modification on a continuous basis where appropriate.

Policy S1.3.5: Require that all new development proposals near the designated wildfire hazard zones identify evacuation/emergency routes, and that the information be provided to all residents within the development.

Policy S1.3.6: Where appropriate, require preparation of a Fire Protection/Fuel Management Plan for new urban development adjacent to natural high fire hazard areas, and ensure implementation of fire hazard mitigation measures.

Policy S1.3.7: Where feasible, require new development to pay for fire protection services and facilities needed to support it.

Policy S1.3.8: Coordinate fire prevention and protection service needs and facility planning with Los Angeles County Fire District.

Policy S1.3.9: Ensure that the requirements of the Los Angeles County Fire Department are implemented on new development proposals, through the review process.

Policy S1.3.10: Require that all new development is served by a water system that meets the fire flow requirements established by the fire department.

GOAL S2: Minimize damage associated with man-made hazards.

Objective S2.1: Minimize damage from catastrophic failure of infrastructure.

Policy S2.1.1: Evaluate potential hazards associated with rupture of the California Aqueduct, to ensure that development in areas threatened with inundation are designed to minimize the threat to life and property.

Policy S2.1.2: Evaluate the potential for inundation from failure of the Lake Palmdale or Littlerock dams when reviewing development proposals within potential inundation areas.

Policy S2.1.3: Evaluate potential hazards associated with detention basin facilities, water main or reservoir rupture and minimize possible threat of inundation to life and property through design measures applied during the development review process.

Policy S2.1.4: Require that development in areas near high-pressure natural gas lines be buffered from them and provided with alternative access/evacuation routes.

Objective S2.2: Minimize damage resulting from aircraft accidents.

Policy S2.2.1: Require all development to comply with applicable FAA regulations which affect development in the Accident Potential Zones.

Policy S2.2.2: Through the design review process, ensure that new buildings are located in a manner which will promote clear linear corridors through the developed area within any Accident Potential Zones, to create potential pilot options in the event of an aircraft emergency.

Policy S2.2.3: Review and evaluate currently existing areas within the low altitude overflight area which are occupied by incompatible uses, to determine the potential of the redevelopment process to convert those land uses to airport compatible uses.

Objective S2.3: Protect the public from hazardous materials and the hazards associated with the transport, storage or disposal of such materials.

Policy S2.3.1: Coordinate with Los Angeles County Fire Department to develop a listing of all hazardous waste generators that could affect City residents.

Policy S2.3.2: Continue to support and encourage state, City and county efforts to identify existing or previously existing hazardous waste generators or contaminated sites.

Safety

Policy S2.3.3: Require that soils containing toxic or hazardous substances be cleaned up to the satisfaction of the agency having jurisdiction, prior to the granting of any permits for new development.

Policy S2.3.4: Restrict or prohibit land uses and activities that generate excessive amounts of hazardous materials or wastes that cannot be properly maintained or disposed.

Policy S2.3.5: Promote the routing of vehicles carrying potentially hazardous materials along transportation corridors that reduce the risk to the public and sensitive environmental areas. Cooperate with regional agencies in developing such routing systems.

Policy S2.3.6: Require that all proposed hazardous waste facilities comply with AB2948 (Tanner Legislation) and Chapter 9 Article 96 of the Palmdale Zoning Ordinance.

Policy S2.3.7: Review proposed development in proximity to any existing or proposed hazardous waste facility, to ensure that future development and land use decisions consider and incorporate site design, setbacks and buffering techniques appropriate for the site and provide adequate mitigation of any potential adverse impacts to such development from hazardous waste facilities.

Objective S2.4: Ensure that development of a federal, state, or county prison in Palmdale shall not impact the health, safety, and lifestyle of residents.

Policy S2.4.1: Require that no jail, prison, or penitentiary facility or ancillary facilities shall be located either in residential areas or within 5 miles of a school, with the exception of a sheriff's substation.

Policy S2.4.2: Ensure that access to jail or prison facilities is not through residential areas, to the extent feasible.

Policy S2.4.3: Review the design and location of any jail or prison facility to ensure that it: (1) affords maximum protection to surrounding areas; (2) presents an attractive appearance compatible with surrounding development; and (3) that all related facilities are located on the same site.

Objective S2.5: Minimize potential hazards related to crime through the development review process and through on-going public education programs.

Policy S2.5.1: Through the development review process, ensure that sites are designed so as to maximize safety and security of users. Site design should consider the following factors, at a minimum:

- a. Visibility of user areas from the public right of way and/or adjacent properties;
- b. Lighting of user areas;
- c. Accessibility for patrol and emergency vehicles;
- d. Legible street numbers from both front and rear, where appropriate;
- e. Use of open fencing where needed for site visibility;
- f. Avoidance of dead ends or tunnel-like passageways in the pedestrian circulation system;
- g. Visibility of parking areas by site users and/or the public right-of-way;
- h. Use and maintenance of appropriate landscaping to maintain visibility and accessibility;
- i. Security fencing to prevent trespass;
- j. Prohibition of exterior ladders to permit roof access by trespassers;
- k. Siting of laundry rooms, play areas and other accessory uses for maximum visibility and security; and
- l. Designation of "defensible space" within project areas for site users.

Policy S2.5.2: Require all commercial and industrial projects to provide adequate lighting for buildings and parking areas, and visibility for patrol vehicles, to assist in law enforcement surveillance.

Safety

Policy S2.5.3: Where appropriate, require provisions of security within new developments on a continuing basis.

Policy S2.5.4: Encourage the formation and continued education of neighborhood and business watch groups, to assist the Sheriff Department in crime prevention and detection.

Objective S2.6: Minimize exposure of residents to other man-made hazards, to the extent feasible.

Policy S2.6.1: If, in the future conclusive evidence links the ELF fields associated with electrical distribution lines, electrical distribution stations, or transformers with deleterious health effects, develop standards for construction, building setbacks, and/or land use restrictions for those areas impacted by hazardous ELF fields.

Policy S2.6.2: To the extent permitted by law, work cooperatively with the applicable agencies and homeowners to eliminate/modify sources which interfere or disrupt emergency communications including, but not limited to, improperly installed or operated Ham and citizen band radios.

GOAL S3: Maintain and enhance City emergency services.

Objective S3.1: Prepare the Palmdale community to be self-sufficient in the event of an emergency.

Policy S3.1.1: Ensure that there is not a reduction in effectiveness of emergency services as a result of growth permitted through the implementation of this plan.

Policy S3.1.2: Develop and implement a plan in cooperation with hospitals, schools, major businesses, utilities, the Red Cross, churches and other service providers to work together and train in preparation for a coordinated response during a major event.

Policy S3.1.3: Periodically, but not less than annually, review emergency service equipment and shelters to ensure that they are adequate to meet the needs of changing land uses and development types.

Policy S3.1.4: Consider the City's daytime and permanent population in determining emergency service needs.

Policy S3.1.5: Require all residents to maintain visible and clearly legible signs and street numbers to shorten the response time of emergency personnel.

Policy S3.1.6: Require City staff to undergo regular disaster preparedness training.

Policy S3.1.7: Maintain and implement the City's adopted Disaster Preparedness Plan.

GOAL S4: Protect public safety through the implementation and enforcement of City Ordinances and through public education.

Objective S4.1: Develop, implement and enforce City Codes to insure safe and sanitary living and working conditions throughout the City.

Policy S4.1.1: Adopt appropriate Codes to assure minimum standards to safeguard health, safety and public welfare by regulating the use and occupancy, location and maintenance of structures within the City.

Policy S4.1.2: Coordinate with other agencies (including but not limited to Los Angeles County Department of Health, Los Angeles County Fire Department, Regional Water Quality Control Board) to require correction of unsafe conditions.

Policy S4.1.3: Promote the upkeep and proper maintenance of the City's housing stock and other structures and properties through the establishment and enforcement of building maintenance standards for purposes of protecting the health, safety and welfare of the public.

Objective S4.2: Support the development and continued updating of public education programs on health and safety.

Safety

Policy S4.2.1: Prepare and disseminate educational information to residents and businesses on preparing for response to hazards of the area, including major earthquake, floods, hazardous waste spills, wildfire, etc.

Policy S4.2.2: Encourage and assist the school districts in teaching children to respond appropriately in an emergency, especially to situations unique to a desert environment. Such training should be repeated regularly to ensure that each child knows what to do in case of heat stroke, snake bites, floods, earthquakes, etc.

Policy S4.2.3: Promote the use of water filtration systems at point-of-delivery for acceptable water quality in emergency situations.

SECTION 3: IMPLEMENTATION

Until such time as the accurate prediction of natural phenomena is achieved and human actions are controllable, hazards are best avoided, mitigated with reinforced protection measures, prevented from compounding effects, and planned for. The implementation section of the Safety Element is concerned with strategies, programs, and ordinances that will be effective in achieving the goals, objectives, and policies contained in the previous section of this Element. The implementation measures are categorized as follows:

- Public Safety Programs
- Public Safety Standards
- Land Use Planning

These measures, taken together, will implement the public safety goals of the City.

A. Public Safety Programs

Public safety programs are aimed at mitigating unacceptable risks where government action is necessary for public safety. Hazard elimination means the removal of existing and potential hazards. As this course is not always possible, precaution and preparedness are necessary. The public safety policies recommend a number of programs that will reduce the loss of life, injury, and property damage in the event of a disaster. These programs focus on educating the public concerning the proper procedures for avoiding hazards; the need for increased emergency preparedness; and prevention or mitigation of existing and potential hazards.

Emergency preparedness means the awareness of existing and potential hazards and the adoption of mitigation measures to preserve public health and safety. The City's policy is to give first priority to saving human lives, and to reduce property damage, second. The City also seeks to eliminate a hazard, reduce the risks if the hazard cannot be eliminated or avoided; but above all, to plan for any potential disasters. Criteria for the allocation of public funds for various safety programs will determine priorities and facilitate implementation. Both private and public funds and resources will be solicited for these programs.

Safety

1. Existing Hazardous Buildings

The City will develop an inventory of existing hazardous buildings (structures highly susceptible to earthquakes, flood, fire, and other hazards). Existing structures may be required to be improved up to current safety codes before any change of occupancy or use is allowed.

2. Relocation/Rehabilitation Program

The City will study the need to develop a relocation/demolition/rehabilitation program to remove or reduce threats to life and safety associated with known hazardous structures. All available funding resources will be pursued to implement this program. If necessary, relocation assistance will be provided for dependent populations that may presently occupy these buildings.

3. Geologic Investigation

The City Engineering Geologist will evaluate the need for a geologic investigation for proposed development within areas of potential geologic hazards. Geologic investigations will be required to include assessment of soil stability, susceptibility to geologic hazards in the area, and any other conditions which, as determined by the City Geologist/City Engineer, may affect structural foundations.

4. Construction and Land Use Standards

The City will review all new development for compliance with construction and land use standards regarding earthquake, fire, aircraft accident, and other hazards. Strict enforcement of building codes and development standards shall be maintained with modifications granted only if no risks to life and property are involved.

5. Special Study Zones

The City has established special study zones in known hazardous areas (earthquake fault zones, flood hazard areas, and areas of steep slopes) in order to identify the need for in depth studies before allowing development within these areas (See Exhibit LU-4.) The construction of high density uses and critical structures on hazardous sites will be limited as required by California state law and City ordinances.

6. Volunteers

The City will offer training programs for people interested in volunteering during emergency preparedness/response activities so that during major disasters, these volunteers are organized and prepared. This program will allow the City to reach out to residents and inform them of ways they can prepare and help others during disasters. The program could also provide additional manpower to City and County agencies in abating or responding to an emergency.

7. Emergency Management

Public officials will be encouraged to attend seminars dealing with emergency management. Better trained leaders will provide the City with the best knowledge to deal with emergency situations. The City will ensure that emergency service providers are competently trained and have adequate resources to respond to the demands of a major disaster.

8. Public Information and Education

The City will develop programs for public information and the education of residents and businesses on earthquake safety, hazardous materials, aircraft accident, fire prevention, flood hazards, crime, dam inundation, geologic hazards, and other issues for which prevention measures may decrease the potential for personal injury and property damage.

9. City Emergency Preparedness Plan

The City has adopted an Emergency Preparedness Plan which identifies emergency responses and recovery operations for disaster occurrences affecting the City. The City will update these procedures at least every five years to accommodate growth and changing situations and to reinform responsible agencies of their specific roles. Resource listings within the City Emergency Preparedness Plan will be updated annually. The City's emergency plan includes disaster recovery programs and reconstruction standards and measures as well as the following information.

- **Evacuation Procedures/Routes**--The City will coordinate with the Office of Emergency Services, the Sheriff's Department, and local fire stations in establishing

Safety

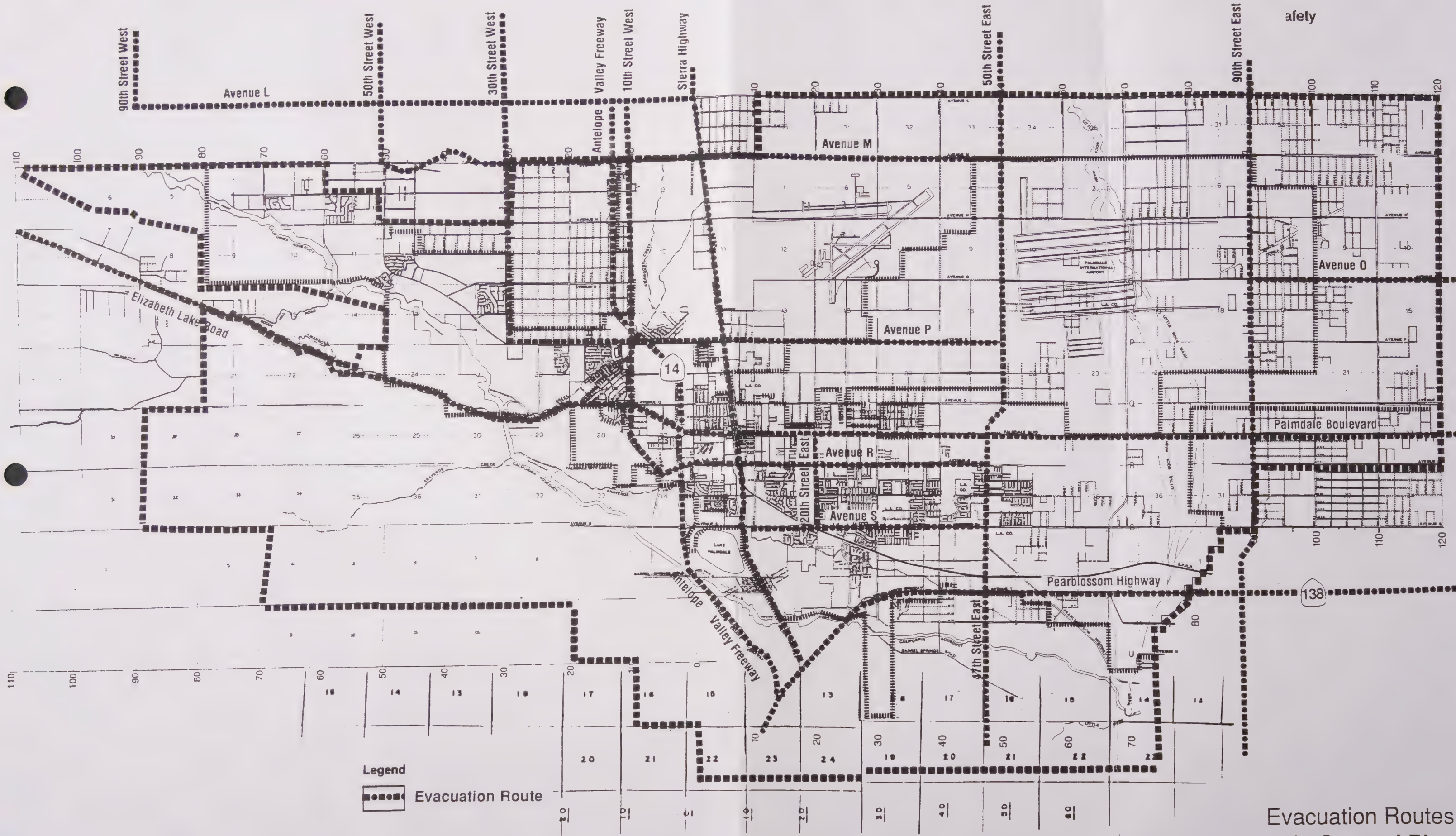
evacuation procedures in the Planning Area. Exhibit S-1 identifies major streets which may serve as evacuation routes.

- **Emergency Drills**--The City's Disaster Preparedness Coordinator will conduct drills each year. These drills will keep both public and private agencies informed of general safety procedures and individual responsibilities. Also, emergency training exercises with state and regional agencies shall be conducted.
- **Monitoring and Warning System**--The City will continually review its warning and public information system, which will facilitate communication during disasters. The public shall be informed of these warning systems to allow prompt and timely responses.
- **Resource Listing**--The City will update its list of resources and individual responsibilities every year to maintain emergency preparedness.

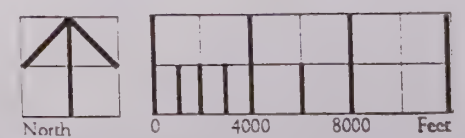
10. Emergency Shelters

Various natural and man-made disasters could affect the residents of Palmdale. Potential disasters include a major earthquake, hazardous materials incident, flooding, dam failure, national security emergency, transportation incident, and major fires in either the wildland or urban areas. In the event of a disaster, local officials and the Emergency Preparedness Coordinator, in conjunction with the Antelope Valley Chapter of the Red Cross need to assess the requirements for mass shelter and feeding.

The City's Emergency Preparedness Coordinator has the responsibility for organizing an emergency response plan as required by the State Office of Emergency Services (OES). This multi-hazard emergency plan addresses the City's preparedness response, recovery, and mitigation in the event of an emergency. The City's plan designates the Red Cross as the official disaster relief agency and arranges for other organizations, such as the Salvation Army to assist in disaster relief efforts.



Evacuation Routes Palmdale General Plan

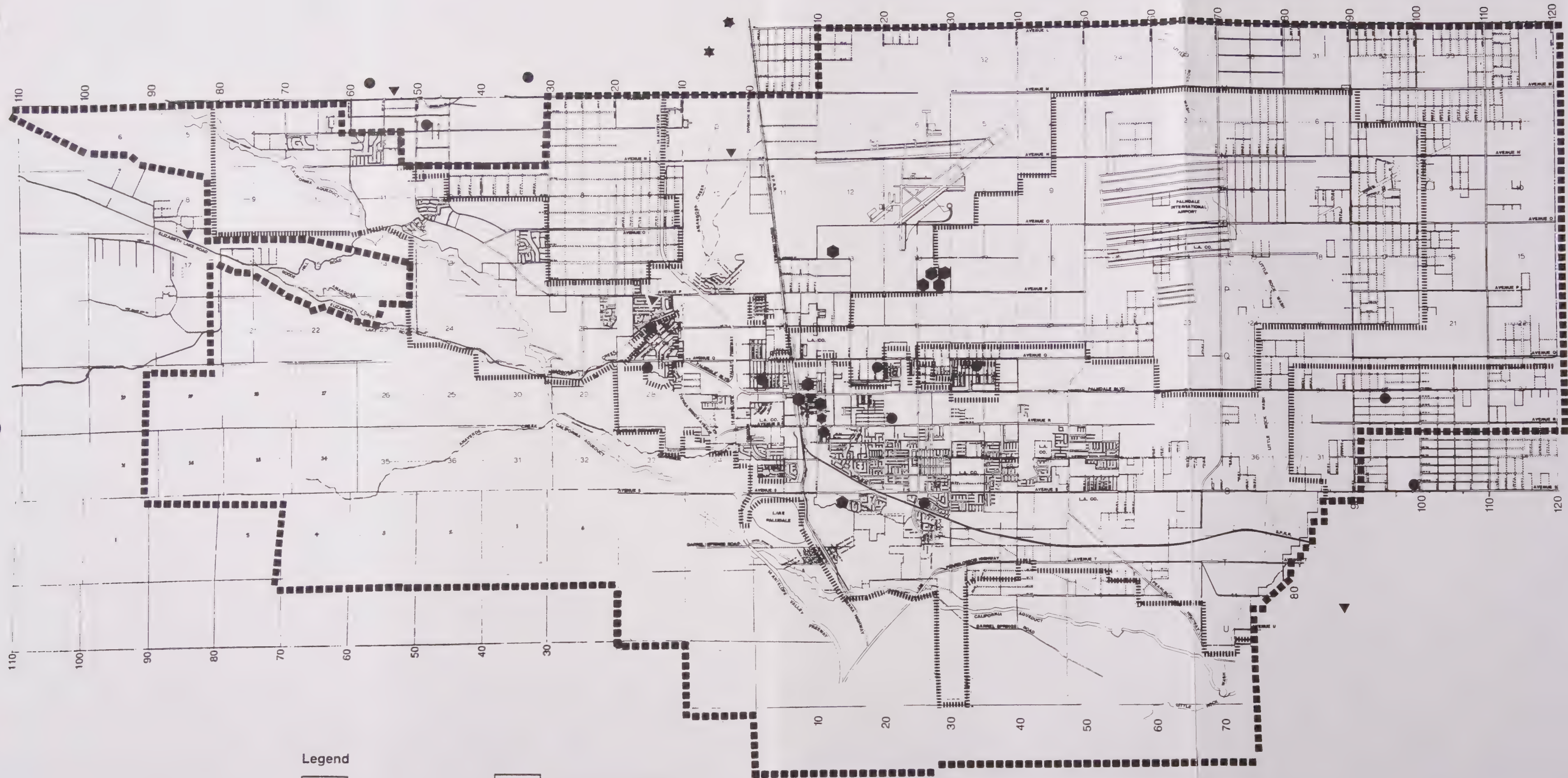


Besides developing the City's multi-hazard emergency plan, the Emergency Preparedness Coordinator is also responsible for locating suitable facilities for shelter and making arrangements with the owners of these facilities for use in the event of a disaster. Such ideal facilities are schools, as they are public facilities and can accommodate a large number of people. Additionally, churches and commercial lodging facilities such as motels and hotels could be employed as needed.

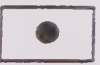






Table S-1 below lists potential care and shelter supporting organizations that might be employed in the event of a disaster. These facilities are depicted on Exhibit S-2.

TABLE S-1**CARE AND SHELTER SUPPORTING ORGANIZATIONS**

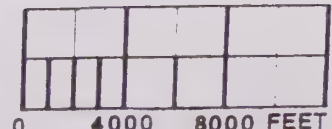
American Red Cross Antelope Valley Chapter	Cross liaison
Salvation Army Lancaster Office	Personnel/supplies/equipment
Palmdale School District	Shelter site
Westside School District	Shelter site
Antelope Valley High School District	Shelter site
Antelope Valley Regional Emergency Operation Center	County EOC liaison



Legend

- | | | | |
|---|-------------------|---|----------------------------------|
|  | SCHOOL |  | CALIFORNIA HIGHWAY PATROL OFFICE |
|  | CULTURAL CENTER |  | PUBLIC SHELTER |
|  | FIRE DEPARTMENT |  | HOSPITAL |
|  | SHERIFF'S STATION | | |

S-19



Emergency Facilities
and Public Shelters
Palmdale General Plan
EXHIBIT C

Adopted by City Council
1/25/93

Table S-2 lists potential emergency care and shelter facilities which are currently owned by the City.

TABLE S-2

EVACUATION CARE FACILITIES OWNED BY THE CITY

Name of Facility	Facility Address	Capacity
Courson Activity Center	38334 10 th Street West Palmdale, CA 93550	60
Courson Senior Center	1002 E. Avenue Q-12 Palmdale, CA 93550	65
Cultural Center	704 E. Palmdale Boulevard Palmdale, CA 93550	150
Desert Sands Park Activity Building	39117 3 rd Street East Palmdale, CA 93550	40

The Antelope Valley Chapter of the American Red Cross is responsible for opening and managing mass care facilities. In the event of a major disaster, there may be an extended delay period of time before the American Red Cross can respond. In the interim, the Director of Emergency Services will:

1. Implement the City's disaster response procedure.
2. Authorize the City's staff to open shelters under the auspices of the American Red Cross.

11. Mutual Aid

The City will continue its mutual aid agreements with other agencies. The City coordinates emergency services in the Planning Area and within the region with various

Safety

county agencies, the State Office of Emergency Services, and the Federal Emergency Management Agency for responses to disasters that involve the region, state, or nation. City services are also available for mutual aid to neighboring jurisdictions.

12. Emergency Funds

The City will apply for programs and funds from state, federal, and regional agencies to help provide relocation assistance, emergency management, relief goods, post-disaster reconstruction programs, and emergency housing when needed.

13. Neighborhood Watch

The City will continue to work with the Sheriff's Department and local residents in maintaining neighborhood watch programs.

14. Natural Gas Lines

The Planning Department will maintain an up-to-date map of major natural gas transmission lines in the Planning Area. Proposed developments adjacent to gas lines will be regulated to provide adequate separation and buffering from these lines, in the event of a rupture or leak.

15. Joint Land Use Committee Policy Review

The City will implement the land use policies of the Joint Land Use Committee, so as to protect Air Force Plant 42 while maintaining safe conditions in adjacent areas.

16. Household Hazardous Waste Disposal

The City may conduct collection of household hazardous waste from residential areas for proper disposal in nearby facilities on at least an annual basis, and more frequently if deemed necessary.

17. Hazardous Waste Management Plan

The City will prepare a hazardous waste management plan that will assure that hazardous waste facility sites and adjacent land uses are compatible with existing developments and that hazardous materials and wastes are stored, used, transported,

treated, and disposed of properly. This plan will be adopted and implemented in accordance with state law.

Through the development review process, risk management and prevention plans will be required for facilities using or producing hazardous materials and wastes, in accordance with state guidelines and the City's adopted Hazardous Waste Management Plan.

18. Development Review

Through the review of site plans, conditional use permits, and other development applications, the City will enforce the standards for floodplain development, hazardous waste facilities and materials, seismic safety, fire prevention and protection, and law enforcement.

19. Water Quality Monitoring

The City will cooperate with the Regional Water Quality Control Board and local water purveyors to implement planning decisions which will protect ground water quality, and consider recommendations from these agencies into the planning and the development review process.

20. Master Drainage Plan

The City will implement the adopted Master Drainage Plan through its capital improvement programs. The City will require developers to comply with the Master Drainage Plan, which provides guidelines for handling nuisance water from developments before storm drain facilities are constructed, in addition to a program for mitigation of regional drainage impacts. The Public Services Element of the General Plan discusses these plans in detail.

21. Zoning Ordinance/Land Use Plan

The City will revise and update its zoning ordinance to incorporate implementation measures in accordance with this Element of the General Plan.

Safety

22. Building and Seismic Safety Codes

The City will enforce its building and seismic safety codes which provide minimum standards for the construction of habitable structures. These standards ensure the structural stability and safety of all developments. The Building and Safety Department reviews all construction plans for compliance with codes prior to development. The City's Building and Safety Department responds to citizens concerns regarding unsafe structures and building code violations, and the City's Code Enforcement section requires abatement of all other code violations.

23. CEQA

The City will implement CEQA requirements for new development and for capital improvement projects. CEQA requires evaluation of potential impacts to public safety from seismic, flood, fire, risk of upset (spills, explosions, etc.), and other factors.

24. Airport Land Use Commission

This General Plan is consistent with the Airport Land Use Plan as adopted by the L.A. County Airport Land Use Commission.

25. Truck Routes

The City will develop and adopt an ordinance designating truck routes and prohibiting through truck traffic on residential streets, to the extent permitted by state law.

26. Public Records of Hazards

The City will provide data on known hazards in the Planning Area for public review. This information will increase community awareness and personal preparedness for residents and businesses.

27. Regional Coordination

The City will coordinate with Los Angeles County and the City of Lancaster in addressing public safety issues which affect the Antelope Valley, such as traffic, crime, air pollution, and water resource issues.

28. Minimum Building Maintenance

The City will adopt an Ordinance which specifically sets forth minimum standards for property maintenance. The ordinance will require that all properties within the City are maintained in a condition which is free from potential risks to public health, safety and welfare.

B. Public Safety Standards

The City will enforce public safety standards in reviewing development proposals, and in land use planning. These standards protect future developments from natural and man-made hazards and provide benchmarks for achieving the goals and objectives listed in Section 2. Other standards, such as minimum street widths and peak water loads, are required by the state code. Standards for streets are discussed in the implementation section of the Circulation Element.

1. Standards for Construction and Development

Construction and development standards contained in the Zoning and Building codes include:

- Engineered construction must comply with Uniform Building Code requirements for seismic zone.
- Emergency facilities and sites with explosives and toxic materials must adhere to more restrictive seismic safety construction.
- Emergency facilities shall be set back from known hazard areas (earthquake fault zones, aircraft crash zones, and flood plains).
- Critical use structures must conduct geologic/seismic hazards studies before construction, and implement appropriate construction techniques.

2. Hillside Development Standards

The City has established hillside development standards to prevent landslide and erosion hazards and to preserve natural grades and scenic views, through the recent adoption of the Hillside Management Ordinance addressing the following issues:

Safety

- The maximum angle of manufactured slopes.
- The maximum height of a manufactured slopes.
- Fire retardant construction, materials, design and landscaping.
- Maintenance of natural drainage to the extent practical, consistent with the Master Drainage Plan.
- Establishment of maximum street grades.

3. Fire Safety Standards

The City will ensure compliance with fire safety standards. All development shall be subject to the review of the Los Angeles County Fire Department's Fire Prevention Bureau to ensure fire safety standards are incorporated into project design. Standards may include but not be limited to:

- Provision of adequate water for fire fighting purposes (fire flow).
- Use of smoke detectors and fire alarms.
- Provision of fire escapes, fire hoses, or sprinkler systems.
- Use of flame retardant construction.
- Encouragement of use of fire-resistive landscaping around structures and fuel modification areas.
- Building-to-building distances.
- Legible street names and address for easy recognition by emergency personnel.

4. Floodplain Development Standards

The City has adopted a Master Drainage Plan which establishes a consistent policy and program for handling stormwater runoff in developed areas. This plan will be

coordinated with the City's capital improvement program. All development in the City must be consistent with the Master Drainage Plan. In addition, all development in flood hazard areas will be required to comply with state and federal regulations, including:

- Executive Order 11988, Flood Plain Management
- Flood Disaster Protection Act of 1973 as amended (PL 93-234)
- National Flood Insurance Program (44 CFR Part 59-75)
- Floodplain Management Guidelines (43 PR 6030)
- L.A. County Flood Control District regulations

Where development in flood hazard areas cannot be avoided, the proposed project or activity must be designed or modified so as to minimize the potential adverse impacts affecting floodplains, restore and preserve the natural and beneficial values served by floodplains, and to use measures which mitigate or reduce the risk of flood loss. Mitigation must achieve protection of life, property, and the natural and beneficial values of the floodplain.

5. Joint Land Use Committee Policies

New projects and land use requests should be reviewed for conformance with the intent of the Joint Land Use Committee (JLUC) policies. The JLUC policies related to safety are as follows:

a. Land Use Within the Accident Potential Zones.

(1) Clear Zone.

All of the Clear Zones are currently within the boundaries of Plant 42 and are not within the jurisdiction of either city (City of Palmdale or City of Lancaster) or the County.

(2) General Policies for the Accident Potential Zone (APZ).

- (a) This Safety Element hereby incorporates by reference the FAA Part 77 Regulations and Tab No B-2 of the Master Plan Vicinity

Safety

Map, Zoning Plan for Air Force Plant 42 for height regulations as they affect the air space around U.S. Air Force Plant 42.

- (b) All development shall comply with applicable FAA regulations which affect development in these zones.
- (c) The General Plan Land Use Element Hazard Zones Exhibit and the Safety Element Aircraft Crash Zones Exhibit have identified the areas which are included within the Accident Potential Zones.
- (d) Open space uses which are low intensity and passive, such as Joshua tree and nature preserves shall be encouraged.
- (e) Avigation easements shall be obtained wherever possible in this zone.
- (f) Disclosure statements which declare that the property is located within the accident potential zone and is exposed to aircraft noise shall be required on the sale or transfer of property in this zone.
- (g) Currently existing areas occupied by incompatible uses shall be examined to determine the potential of the redevelopment process to convert those land uses to airport compatible uses.
- (h) New buildings shall be located in a manner which will promote clear linear corridors through the developed area to create potential pilot options in the event of an aircraft emergency.

(3) Accident Potential Zone 1.

- i. New residential uses shall not be approved in this zone.
- ii. Commercial uses shall be prohibited.
- iii. Industrial uses should be encouraged with the restriction that average employee density shall not exceed 25 persons per acre per hour and lot coverage by buildings shall not exceed thirty percent of the site.

(4) Accident Potential Zone 2.

- i. Residential uses should be discouraged but, if allowed, shall not exceed one dwelling unit/2.5 gross acres.
- ii. Commercial uses which do not draw large numbers of customers to the site shall be encouraged. Customer intensive retail operations are excluded. Average employee density should not exceed 25 persons per acre per hour.
- iii. Industrial uses should be encouraged with the restriction that average employee density shall not exceed 25 persons per acre per hour and lot coverage by buildings shall not exceed forty percent of the site.

C. Land Use Planning

The goals, objectives, and policies included in the Safety and other elements provide the framework for hazards mitigation through prudent land use planning. One of the most powerful tools for protecting public safety available in the General Plan process is the Land Use Map, which designates the appropriate location for the various types of development permitted in this plan. In areas where a significant hazard is present, the type of development permitted must reduce risks to an acceptable level.

Land uses which would potentially handle hazardous materials/wastes shall not be located near residential areas, critical facilities, immobile populations, and other areas as specified in the City's Hazardous Waste Management Plan.

Flood hazard areas, aircraft crash zones, and the Alquist-Priolo Special Studies Zone are shown on Exhibit LU-4. Unstable soils are shown in Exhibits S-9, S-10 and S-11.

New development must be protected from public safety risks and must not add to existing hazards. Development shall be limited in hazard areas as indicated above.

SECTION 4: ISSUES AND OPPORTUNITIES

Threats to public health and safety are posed by natural and man-made conditions. Natural hazards result from characteristics of the environment. They are difficult to control or eliminate and are best avoided in order to reduce their potential for damage. Human action may magnify the potential impact of natural hazards, but the safety risk is primarily dependent on environmental conditions, such as the presence of earthquake faults, flood plains, and steep slopes. Man-made hazards stem from human activity. They happen as a result of specific practices and actions of man which may create a potential for fire, aircraft accidents, hazardous materials contamination, and crime. To eliminate a man-made hazard, the complete suspension of particular activities may be necessary; However, economic forces may require that the activity continue for the community's continued viability.

In the Palmdale area, the major natural hazards are seismic activity, flood, geologic conditions, and wildfire hazards. Aside from these, urban fires, aircraft accidents, hazardous materials contamination, and crime hazards are present due to ongoing human activities.

This section of the Safety Element discusses the natural and man-made hazards that affect the Planning Area and the impacts that they could have on life in the City. It focuses on seismic hazards, flood-related hazards, geologic hazards associated with the slope stability and soils, fire hazards, the risk of aircraft accidents at the USAF Plant 42, hazardous materials, and crime. Some of these issues were identified early in the planning process by City staff, residents, and members of the CAC. In addition, there are statewide and regional safety issues which affect the City. All of these are discussed below.

This section documents existing conditions in the Planning Area and provides the background analysis that led to the recommended goals, policies, and implementation measures contained in the previous sections. Additionally, more detailed information on each issue may be found in the Master Environmental Assessment for the General Plan.

A. Seismic Hazards

A major earthquake in Southern California is expected to cause loss of life, injury, and property damage at a scale unprecedented in this nation's history. While it is

Safety

impossible to prevent an earthquake from occurring, research is continuing to develop ways of predicting earthquakes. Still, it will be many years before a program which accurately and reliably predicts earthquakes can be implemented.

The City of Palmdale and the Planning Area are located in a seismically active region. The dominant seismic feature affecting the City is the San Andreas Fault which traverses the southernmost portion of the Planning Area. The San Andreas Fault is the boundary where the North American plate and the Pacific plate meet. Relative movement of the plates along this boundary causes earthquakes. This fault is considered one of the most dangerous in the state in terms of destructive potential. The San Andreas Fault extends over 600 miles from the Salton Sea, northwest toward the Pacific Ocean at Point Arena. Two of the three largest (8.0+ Richter) earthquakes in the state have occurred along the San Andreas Fault: the 1906 San Francisco earthquake which caused 21-foot offsets and the 1857 Fort Tejon earthquake. Table S-3 lists earthquake activity on the resulting Modified Mercalli intensity from the San Andreas Fault. Intensity measures the amount of groundshaking caused by an earthquake. An intensity value is assigned by the amount of damage to structures, changes in the earth's surface, and personal accounts.

In addition, several fault traces branch off from the primary fault within the San Andreas Rift Zone. The major fault traces for the San Andreas system in the Palmdale area are the Cemetery Fault, the Nadeau Fault, and the Littlerock Fault. All three faults are active splays of the San Andreas Fault. Thus, movement on the San Andreas Fault may activate one or all of these subsidiary faults. The Nadeau, Cemetery and Littlerock fault traces are located in Palmdale (see Exhibit S-3). Other splays of the San Andreas Fault which are found in Palmdale are the Powerline Fault and the eastern end of the Clearwater Fault.

In addition to the San Andreas Fault system, other principal faults that could produce damaging earthquakes in the Palmdale area are the Sierra Madre-San Fernando, Garlock, Owens Valley, and White Wolf faults. Their maximum probable magnitudes are listed in Table S-4. A maximum probable earthquake is the largest event expected to occur within 100 years. The Sierra Madre Fault is located at the base of the San Gabriel Mountains approximately 20 miles south of the Planning Area. The Garlock and White Wolf faults are northeast-trending faults located 30 to 60 miles, respectively, northwest of the Planning Area. The Owens Valley fault is 60 miles to the northeast and runs north-south. A number of other faults located in the Southern California

TABLE S-3

MAJOR SAN ANDREAS FAULT ACTIVITY

<u>Date</u>	<u>Magnitude</u>		<u>Modified Mercalli Intensity</u>	<u>Location</u>
1838	7.0	X	- Comparable to 1906 earthquake	San Francisco
1857	7.9	IX+	- Buildings and large trees thrown down	Fort Tejon
1858	6.1	IX+	- Damage to building frames and foundations	San Francisco
1868	7.0	IX+	- Many buildings wrecked badly damaged. 30 killed	Hayward Fault
1890	6.8			So. Santa Cruz Mountains
1899	6.7	VIII	- Brick buildings badly damaged. 6 killed.	San Jacinto Fault
1906	7.7	XI	- Great earthquake and fire. 700 killed. Greatest damage on poorly filled land. 6.5 meter horizontal slip.	San Francisco
1916	6.0+			Tejon Pass
1922	6.5	IX	- Damage to masonry buildings and reservoir. Ground cracking.	Cholame Valley
1934	6.0	VIII	- \$41 million damage. 120 killed	Parkfield
1989*	7.1	VIII	- Localized freeway and bridge collapse. 63 killed.	San Francisco/Bay Area

*Southern Santa Cruz Mountain segment of the San Andreas fault

Source: California Department of Mines and Geology, Fault Map of California and Earthquake Hazards in the Los Angeles Region; Hill et al., 1979; Toppazada et al 1981, 1982; Jennings 1975

region could be responsible for earthquakes that would affect the City; although no major damage is expected to occur. Exhibit S-4 indicates the relative location of the major faults near Palmdale and Exhibit S-5 shows earthquake faults in the Southern California region. Section 3.1 of the Master Environmental Assessment for the General Plan includes a detailed description of seismic characteristics in the region.



- Legend
- ALQUIST-PRIOLO ZONE
 - RELATIVE FAULT LOCATION
 - SEISMIC SHAKING ZONE

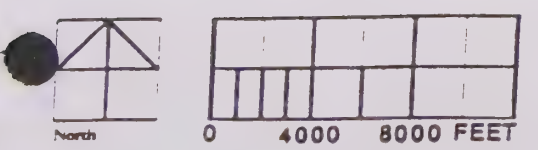


TABLE S-4
FAULT MAGNITUDES

<u>Fault</u>	<u>Maximum Probable Magnitude (Moment)*</u>	<u>Recurrence Interval (Years)</u>
San Andreas	8.0+	50-200
Sierra Madre-San Francisco	6.6	50-200
Garlock	7.5	500-700
Owens Valley	7.4	850-900
White Wolf	7.2	300

*The Moment Magnitude is preferred to the Richter Magnitude for earthquakes larger than 6M. As the magnitude surpasses 6.5M (Richter), all events begin to take on the same magnitude values. The Moment Magnitude keeps its integrity and delineates the different values greater than 6.5M.

Source: California Department of Mines and Geology Preliminary Report #13, C. W. Jennings; Los Angeles County Seismic Safety Element

The amount of groundshaking at a site is often expressed in terms of the peak acceleration relative to acceleration due to gravity. Ground acceleration is the rate of increase of velocity of the ground, where each incremental change in rate can be related to increasing force acting on a structure. Thus, the greater the acceleration, the greater the force acting on a building site. Expected seismic shaking zones for an earthquake with a magnitude of 8.0 or more are also delineated. Zone 1 are areas most likely to experience severe accelerations greater than 0.5 gravity; Zone 2, where acceleration will be from 0.5 to 0.4 gravity; and Zone 3, where acceleration will be 0.28 to 0.4 gravity. Estimated Modified Mercalli intensities from a locally-occurring earthquake will be VII to IX. A VII Mercalli intensity will cause slight to moderate damage to well-built ordinary structures, it will be difficult to stand, and water may become turbid with mud; while a IX Mercalli intensity will cause the partial collapse of most structures, general panic will ensue, serious damage to reservoirs and underground pipes will occur, and there will be visible cracks on the ground.

Exhibit S-4

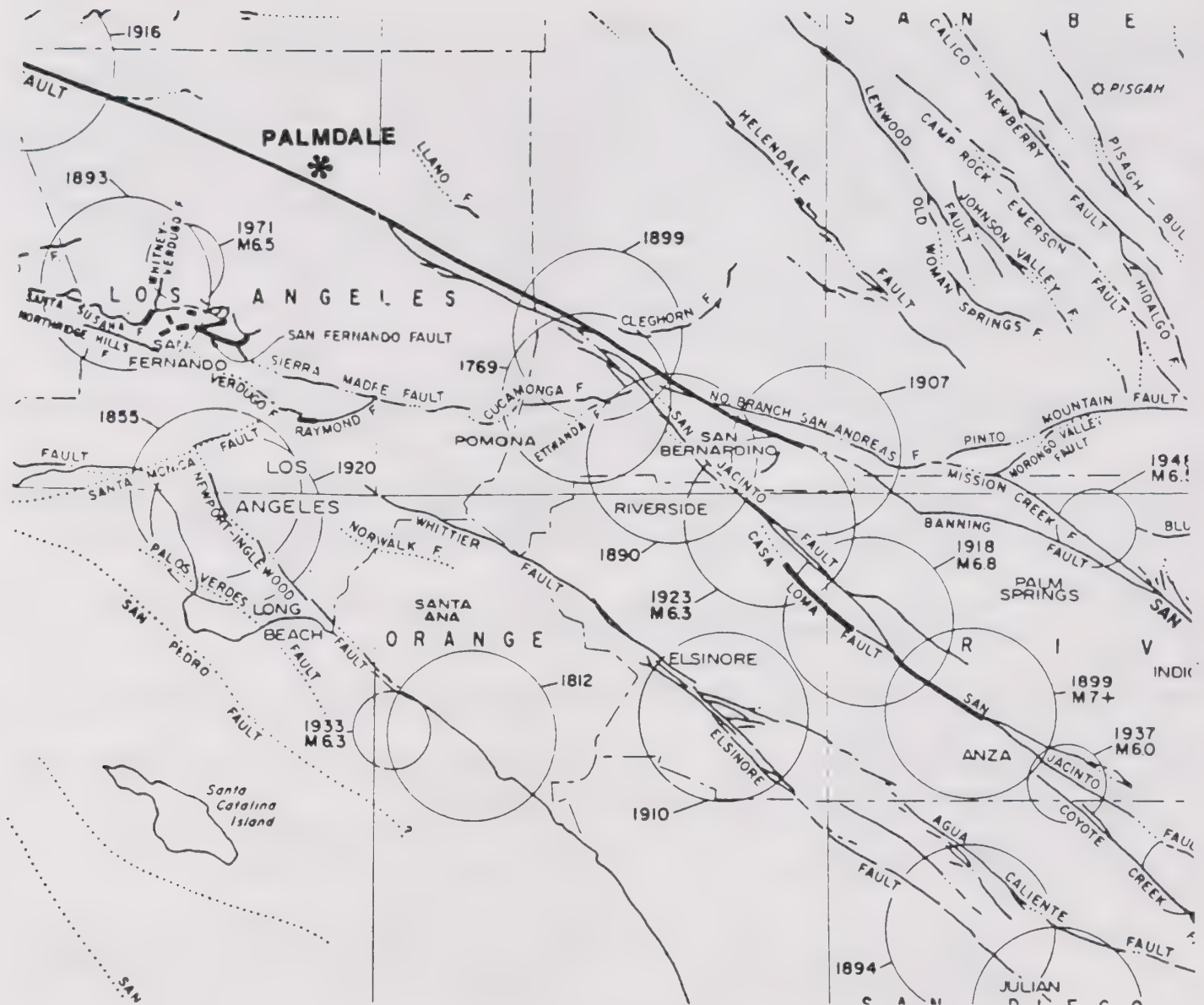


Major Faults Near Palmdale

Adopted by City Council
1/25/93

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EXHIBIT S-4



ACTIVE FAULTS

— Total length of fault zone that breaks Holocene deposits or that has had seismic activity

— Fault segment with surface rupture during an historic earthquake, or with aseismic fault creep

● Holocene volcanic activity (Ambry, Pyramid, Cerro Prieta and Salton Buttes)

EXPLANATION*

EARTHQUAKE LOCATIONS



Approximate epicentral area of earthquakes that occurred 1769-1933. Magnitudes not recorded by instruments prior to 1906 were estimated from damage reports assigned an intensity VI (Modified Mercalli scale) or greater, this is roughly equivalent to Richter M6.0. 31 moderate earthquakes (7 major and one great earthquake [1857]) were reported in the 164-year period 1769-1933.

Earthquake epicenters since 1933, plotted from improved instruments. 29 moderate and three major earthquakes were recorded in the 40-year period 1933-1973.



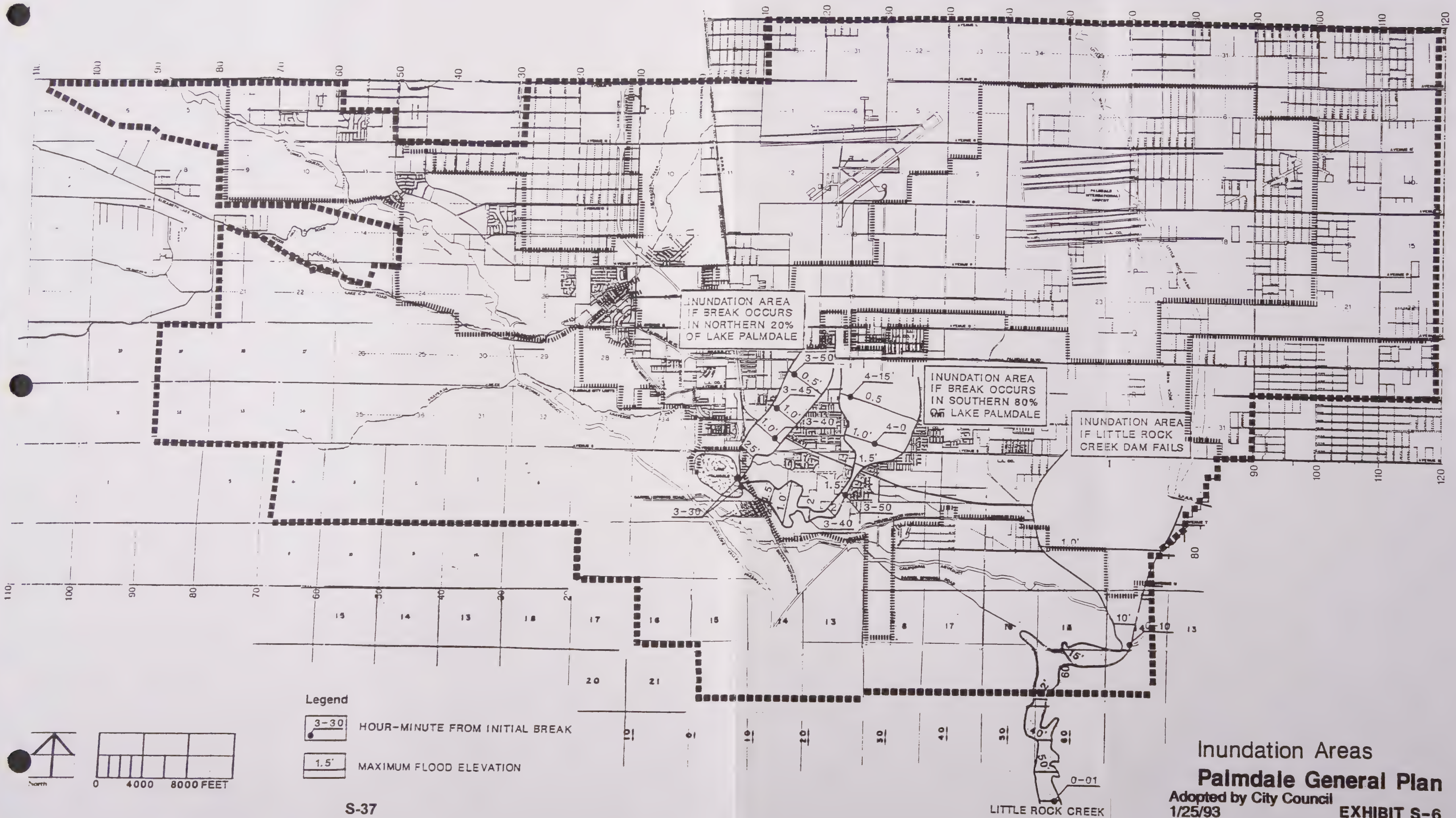
Major Faults in Southern California Palmdale General Plan

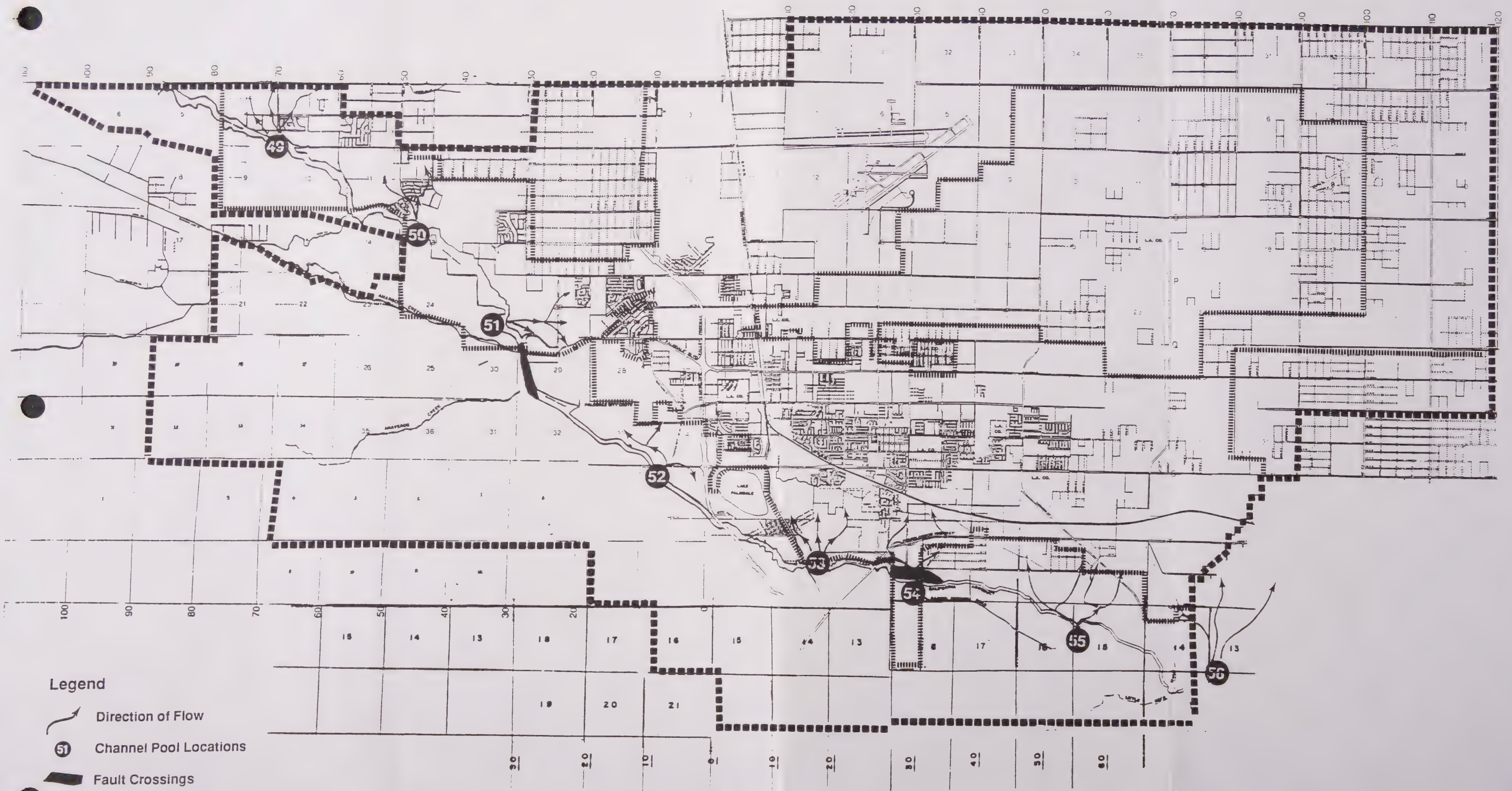
Safety

Aside from groundshaking and ground surface rupture, earthquake hazards include the fissuring or cracking of bedrock, landslides, liquefaction, and ground settlement. Structures most likely to be affected by earthquakes are those that are old or near earthquake faults in areas that may be prone to liquifaction. Dams along earthquake faults may be subject to failure and may cause flooding of the surrounding area. Critical damage may also occur to structures that provide emergency services (hospitals, fire stations, schools, emergency shelters). Roads and utility lines for water, gas, power, telephone, sewer, and storm drainage may be disjointed and services cut off. These structures require special attention in the public safety programs of the City.

In case of a major earthquake on the San Andreas Fault within or near the Planning Area, damage to the following structures is expected:

1. Palmdale and Littlerock reservoirs could sustain surface rupture and cause area flooding. Exhibit S-6 delineates possible inundation areas for both reservoirs.
2. Palmdale Hospital Medical Center could lose 56 percent of its bed capacity (69 beds out of 123 beds) due to structural damage.
3. Rail lines crossing the fault may be displaced from Palmdale to Interstate 5.
4. The California Aqueduct may rupture causing flooding of the surrounding area and loss of water supply to the region (Exhibit S-7).
5. Telephone lines, sewer pipes, and water lines may be truncated.
6. High voltage lines (138 kv and greater) may be damaged, along with the Vincent substation, causing power failure in the area. Exhibit S-8 shows the relative location of these lines.
7. Two high pressure gas lines running along Avenue S may be ruptured as shown in Exhibit S-8.





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Aqueduct Failure Flow Direction Palmdale General Plan

Adopted by City Council
1/25/93

EXHIBIT S-7

TO ANTELOPE
STATION

Safety

TO GORMAN
SUBSTATION

TO SYLMAR
SWITCHING STATION

TO VALVE STATION 21,
THEN TO VICTORVILLE

TO QUIGLEY PRESSURE-
REGULATING &
METERING STATION,
THEN TO NEWHALL

TO ADELANTO
SWITCHING STATION

FROM VINCENT
SUBSTATION

Legend

- P.L.S. 30 INCH GAS TRANSMISSION PIPELINE
- SCE TRANSMISSION LINES (220 KV AND GREATER)
- L.A. DWP TRANSMISSION LINE

Gas and Power
Transmission Lines
Palmdale General Plan

Adopted by City Council EXHIBIT C-2

NO SCALE

S-39



8. Highways that may be temporarily closed include:

- Antelope Valley Freeway from Lancaster to Sierra Highway
- Sierra Highway between Pearblossom and Avenue S
- Pearblossom Highway from Sierra Highway to Route 138
- Route 138 from Littlerock to San Bernardino County Line
- Elizabeth Lake Road
- Bouquet Canyon Road

9. Other critical structures used for emergency services (schools, congregate care facilities, shelters) may be subject to major damage during an earthquake.

10. Damage may be sustained by residential and other structures located close to the fault rupture due to intense groundshaking and slope failure.

The Alquist-Priolo Special Studies Zones Act was signed into law on December 22, 1972 and went into effect on March 7, 1973. Under this act, the State Geologist is required to delineate "special studies zones" along known active faults (active faults include those where an earthquake has occurred in Holocene time - from the present time back to 11,000 years). The purpose of this Act is to prohibit the construction of new buildings across the trace of active faults. Cities and counties affected by the provisions of this act must regulate development within the special studies zones through zoning controls, geologic studies, or other measures (Hart 1988). The Alquist-Priolo Act and the fault zones delineated by the State Geologist only address surface rupture hazards. Groundshaking and other seismic hazards are not addressed by these zones.

The San Andreas fault zone is among those active faults identified in the legislation where special land use planning considerations are required to minimize the loss of life, injury, and property damage due to surface rupture in the event of a major earthquake. The zone includes areas located within one-eighth mile of an active fault. Policies and criteria for dealing with seismic hazards were established to assist cities and counties, although the act does not preclude local governments from adopting more stringent requirements. The City of Palmdale implements the Alquist-Priolo Special Studies Act by means of the development review process, in which every proposed development within the Special Studies Zone is required to prepare a detailed geotechnical report

LEGEND

L

15% or Less

M

15-25%

25% or Greater



S-41

Slope Categories
Palmdale General Plan
Adopted by City Council
1/25/93 **EXHIBIT S-9**

Palmdale General Plan

Adopted by City Council

1/25/93

EXHIBIT S-9

and fault rupture survey. These studies are then reviewed by the City Geologist and special conditions (i.e., structural setbacks and/or special engineered foundations) are placed on projects as deemed necessary by the City Geologist.

Earthquakes affect areas several miles away from the epicenter and continue to elude prediction. The only presently known measures to minimize the hazards involve structural reinforcement, physical separation, and emergency preparedness to deal with the aftermath of the disaster. The City of Palmdale will utilize every available measure to protect public safety and minimize property damage from seismic hazard through the policies and implementations programs contained in this Element.

B. Geologic Hazards

The area's geology determines its capacity for supporting man-made structures. In Palmdale, consolidated rocks make up the mountains and rocky buttes while alluvial soils are found on stream beds and the valley floor. Pelona schist underlies most of the mountainous portions of the Planning Area. Beneath the alluvial soils are the same hard rocks as found in the mountain areas. Geologic hazards are present in the form of unstable soils and certain ground formations which render some areas unsuitable for intensive human activity.

Hillside Areas

The Planning Area features steep slopes on its southern and western edges. These areas include unstable slopes, and areas subject to erosion. Areas with slopes less than 10 percent are generally considered suitable for all types of development. Those with a 10 to 25 percent slope are typically required to use hillside construction techniques to achieve substantial foundation support and stable soil conditions. Areas with slopes greater than 25 percent are subject to instability and erosion and are generally not recommended for development. Exhibit S-9 shows the slope categories within the Planning Area. Increasing urbanization on the hillsides could expose the community to possible landslides and rockslides which may result in human injury and property damage.

Extensive grading will be required to create a developable surface on hillside areas. However, grading is also a form of land disturbance which may promote land failure. To ensure public safety on hillside developments, the Hillside Management Ordinance was adopted to address the issues listed in Section 3 of this Element.

Safety

Soils Within Fault Rupture Areas

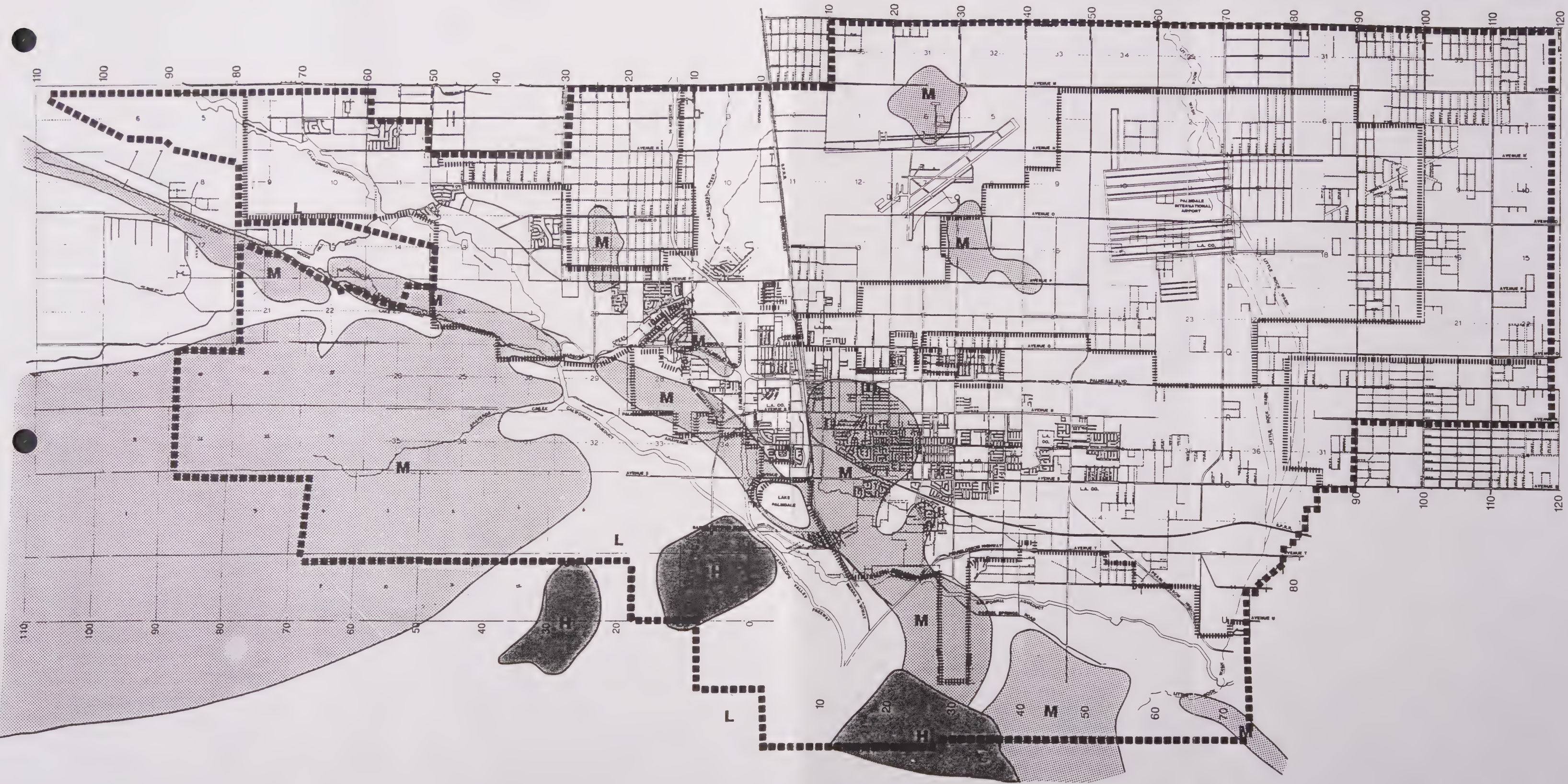
Lands adjacent to fault zones are exposed to geologic hazards as a result of repeated fault movement. Earthquakes give rise to broken subsurface rocks, ground surface fracture, and clay gouge. Broken subsurface rocks may not be readily apparent but the ground would no longer have its original cohesive and shear strength to carry building loads. Surface cracks and dips increase the potential for erosion and landslides. Clay gouge occurs as a result of faulting and may cause differential ground settlement. Repeated ground movement from earthquake and grading will cause more settlement in areas with granular soils than in other places. Liquefaction potential is determined based upon soil type and distance to groundwater.

Expansive Soils

A soil's potential to expand when wet and shrink when dry depends on the type and amount of clay in the soil. Soils with certain types of clay tend to swell or expand when its water content is increased. They also shrink disproportionately when dry. Highly expansive soils can cause structural damage to foundations and roads. Landscape irrigation could concentrate subsurface water and subsequent soil expansion could cause land slippage and structural damage. Soils with low shrink/swell potentials are suitable for building, with other factors considered. A high shrink/swell potential makes the site less suitable. Detailed investigations may be necessary for areas with moderate to high expansion potentials. Development on expansive soils requires special grading and construction techniques which increases development costs. Exhibit S-10 shows the expansion potential of soils in the Planning Area.

Soil Erosion/Sedimentation

The propensity for soil erosion by wind or water runoff is dependent on soil type and its consolidation, vegetative cover, slope, and runoff velocity. Erosive soils are noted in Exhibit S-11 and are often found in steep slopes where runoff velocity is also greatest and vegetative cover least. Eroded materials end up on the valley floor with coarse materials near the hillsides and finer ones in areas farther from the slopes. Erosion can usually be controlled with slope planting, the control of drainage flows, terracing, and retaining walls.



S-44

Legend



Soil Expansion Potential Palmdale General Plan

Adopted by City Council
1/25/93

EXHIBIT S - 10



Legend

NS	NONE TO SLIGHT	M	MODERATE
H	HIGH	VH	VERY HIGH

Soil Erosion Potential
Palmdale General Plan

Soil Infiltration Capacity

The water percolation quality of soil or its permeability depends on grain size, the amount of compaction, and soil depth, among other things. Coarse-grained soils such as sand and gravel are more permeable than silt or clay. The ability of soil to percolate water determines which areas are best for groundwater recharge, where septic tanks are appropriate, and what proportion of storm water will be absorbed by the ground. Exhibit S-12 characterizes the infiltration capacity of soils in the Planning Area. Soils with very slow infiltration when thoroughly wetted have high runoff potential. They are usually highly expansive clay soils, soils with high water tables, and soils with clay layers or impervious material near the surface. Soils with slow infiltration when thoroughly wetted are fine-textured and have a layer that impedes the downward flow of water. High runoff and slow water transmission is associated with these soils. Moderate infiltration means a moderate runoff potential, with medium-textured and well drained soils. High infiltration characterizes deep, excessively drained soils with low runoff potentials. They consist mainly of sand and gravel materials. Sites with very poor percolation may be difficult and expensive to develop due to sewer and storm drainage requirements. Normally, each development is required to detain project related storm run-off on site. In areas of soils with very poor infiltration capacity, storm water must be conveyed via storm drain to an acceptable off-site detention site; sometimes a considerable distance away.

Septic Tank Limitations

Exhibit S-13 shows areas with septic tank limitations. Soils with a permeability of more than 1 inch per hour, excessive or good drainage, no flood hazard, and a permanent water table more than 6 feet deep are considered to have slight limitations for the use of septic tanks. Moderate limitation is characterized by soils of a permeability of 1.0 to 0.63 inch per hour or less, somewhat poor drainage, flooding length is less than 48 hours and the permanent water table is from 4 to 6 feet. Severe limitations for septic tanks are due to a permeability of 0.63 inch per hour or less, very poor drainage, a chance of flooding 1 year in 5, and a water table less than 4 feet. Sewer systems are needed in these areas to reduce the hazards to residents and the environment. Drywell



- Legend
- VS** VERY SLOW
 - S** SLOW
 - M** MODERATE
 - H** HIGH



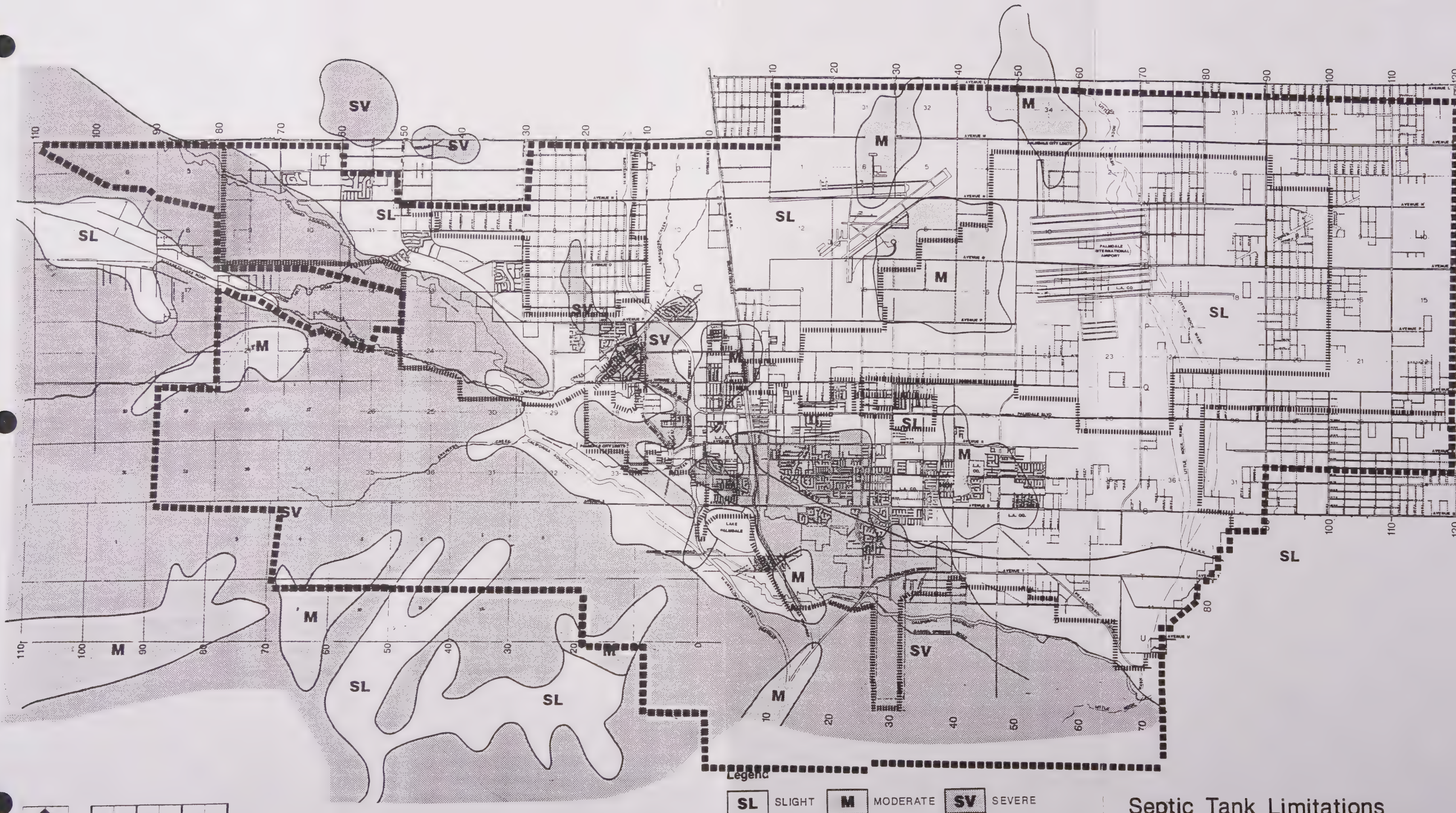
VS

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Soil Infiltration Capacity Palmdale General Plan

Adopted by City Council
1/25/93

EXHIBIT S-12



Septic Tank Limitations Palmdale General Plan

Adopted by City Council
1/25/93
EXHIBIT S-13

disposal of nuisance water may be ineffective in these areas and alternative disposal methods need to be provided. The City's current policy is to require connection to a public sewer for all new single family development on lots of less than one acre, all multi-family development and all commercial or industrial projects. Where septic systems are permitted, they are governed by regulation of the State Water Quality Control Board, Lahanton Region.

Subsidence

Ground subsidence is caused by decreasing subsurface pressure and can be traced to the pumping of groundwater, natural gas, or oil. The substantial loss of ground fluid creates a vacuum that gradually causes the sinking of the ground. Subsidence may adversely impact development, as well as cause damage to underground utility lines. Rates of subsidence are plotted in Exhibit S-14. Although the southwestern portions of the City are not classified, this does not mean that no subsidence has occurred, only that no survey has precisely measured subsidence in the area.

Hydrocompaction

Collapsible (hydrocompactive) soils are low density, fine-grained, granular soils containing minute pores and voids. They possess some cementation in dry condition but when saturated, these soils undergo a rearrangement of the grains and a loss of cementation. This rearrangement results in the collapse of the soil structure at depth and differential settlement at the surface, even with relatively low loads. Collapsible soils are extremely sensitive to increased moisture due to a rise in the water table or over irrigation.

Collapsible soils result from deposition where materials have not had enough contact with moisture to form a compact soil. These soils are abundant in arid environments on recently deposited Holocene alluvium and older unconsolidated sediments. Two principal depositional regimes that result in collapsible soils are eolian sands and silt and mudflow sediments. The arid environment with Quaternary deposits that are susceptible to collapsible soils are found in the Planning Area.

Only isolated investigations have occurred in the Antelope Valley that do not make it feasible to map out areas where collapsible soils may present hazards to development. Water channels and alluvium fans are especially susceptible to collapsible soils. All desert soil may be considered collapsible in the first few feet because the alluvium is so dry that it causes settlement when wetted. Soils investigations should be performed prior to any construction activity to determine the presence of collapsible soils. Areas with collapsible soils should not be developed unless the hazard is remedied through acceptable engineering practices for achieving soil stability.

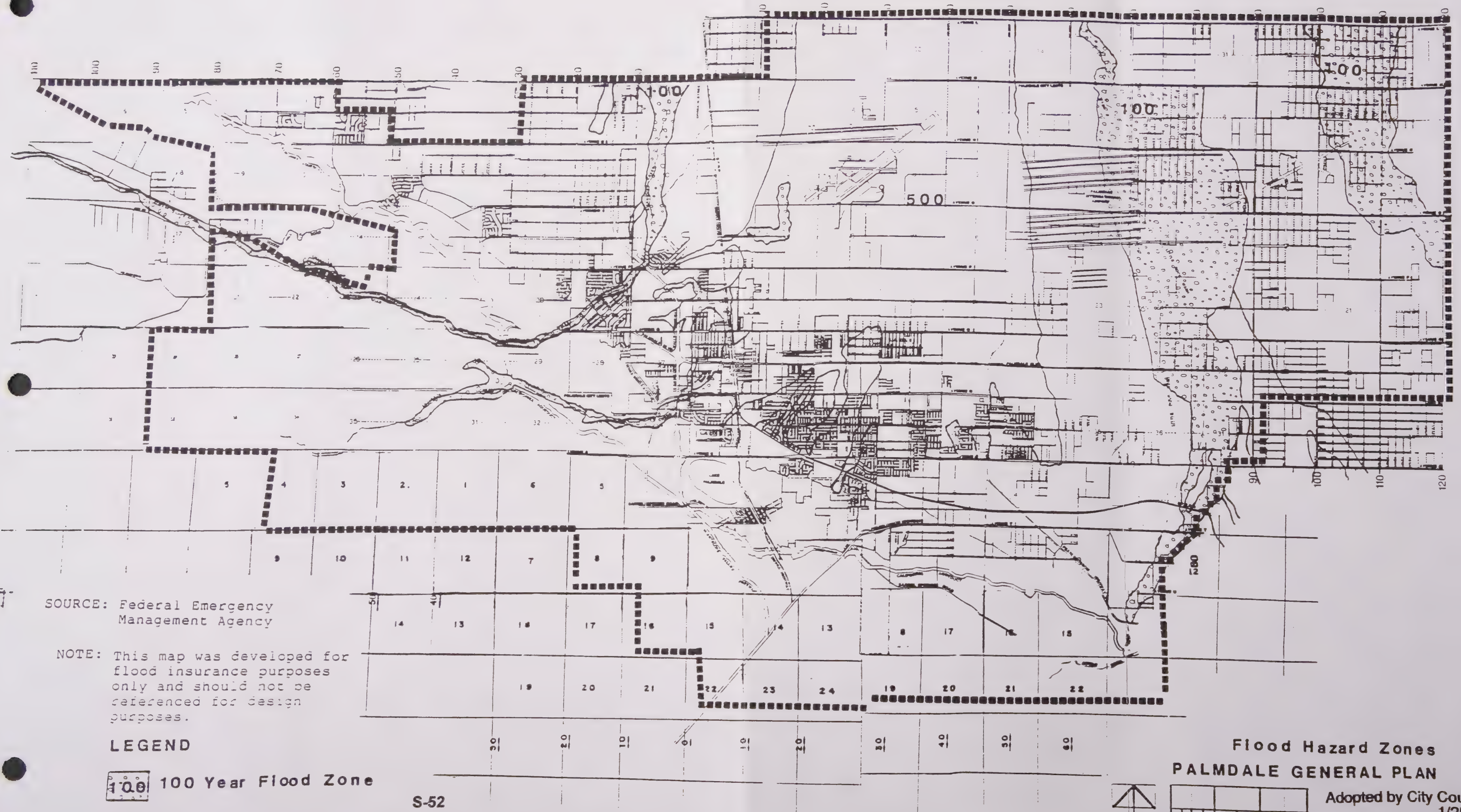
Complete elimination of geologic hazards is not possible due to the expense and the potential damage to the environment from massive alteration of the terrain. Danger can be avoided by regulating or restricting construction in areas with soil stability problems. It can also be reduced to some extent by grading and other engineering methods which remedy soil instability and provide a stable foundation for building construction. Differences in soil stability can be handled by engineering methods to offset any potential damage to the foundation which would reduce structural strength of buildings.

C. Flood Hazards

Rainfall in the Antelope Valley is relatively sparse due to its location on the leeward side of the Sierra Pelona and San Gabriel Mountains. Only a small section on the southwest of the Planning Area features south-facing slopes of the Sierra Pelona Mountains. The average annual rainfall is 5.15 inches in Palmdale and approximately 20 inches in the mountains. However, throughout most of the year, very little surface runoff from the upper watersheds ever reaches the City.

Sheetwash occurs along major drainages and adjoining areas on scattered sites. Areas with flood hazards are the natural drainage channels of Amargosa Creek, Anaverde Creek, Little Rock Wash, and Big Rock Wash (see Exhibit S-15). Flat plains and natural depressions are also subject to possible flooding.

Urban development reduces the total ground absorption area by creating impermeable surfaces (structures, pavement, streets). Storm runoff, increased by the presence of impermeable surfaces, flows from developed areas, contributing to street flooding. Moreover, developed areas generate irrigation water runoff from landscaping which may channel nuisance water flow into nearby undeveloped areas and street gutters.



SOURCE: Federal Emergency Management Agency

NOTE: This map was developed for flood insurance purposes only and should not be referenced for design purposes.

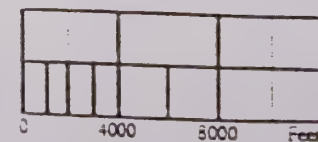
LEGEND

100 100 Year Flood Zone

500 500 Year Flood Zone

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Flood Hazard Zones PALMDALE GENERAL PLAN



Adopted by City Council
1/25/93

EXHIBIT S-15

The amount and frequency of rain is variable, and although flood waters may be diverted, the lack of a completed regional drainage system will continue to result in local flooding problems. The City has recently adopted a Drainage Master Plan. It will take approximately 20 years to complete construction of the entire system. The plan addresses storm water runoff from higher slopes and existing and future developments. The Los Angeles County Department of Public Works has completed and adopted the Antelope Valley Comprehensive Plan of Flood Control and Water Conservation (June 1987) which is currently being implemented in the unincorporated portions of the Antelope Valley. The storm drainage section of the Public Services Element discusses flood hazards in more detail.

Earthquake faults create vertical barriers to groundwater which may result in shallow groundwater conditions. They may also limit the amount of water which can percolate into the subsurface, thus increasing the amount, velocity, and erosive capacity of stormwater runoff on hillsides.

Surface rupture and groundshaking from earthquakes may result in rupture of the Palmdale and Littlerock Dams, causing flooding as shown in Exhibit S-6. Flood waters could be as deep as 50 feet immediately downstream of the Littlerock Dam. Failure of the Littlerock Dam would result in the inundation of a 300-foot wide area for 0.25 mile north of the dam. Along this length, the water depth would vary from 50 to 15 feet. Ten minutes after failure, the flood water would veer eastward for 800 feet to Avenue U where the depth would be reduced to 10 feet. Trending north from Avenue U, the water would eventually dissipate so that the depth is no longer a risk to downstream developments.

In addition to dam failure and subsequent flooding, a seismic event could cause a water wave, or seiche to occur at Lake Palmdale, which could potentially overtop the dam. The design report for the dam considers a reflection of the wave on return unlikely. Also, wave volume above the dam would not be substantial (approximately 1 acre-foot), and would not result in damaging floods. Overpour on the downstream side of the dam will not cause any damage by erosion as the existing rockfill was designed to withstand it. The Sheriff's Department has been assigned with the coordination of notification efforts and local evacuation in the event of dam failure.

Safety

In the event of a large magnitude local earthquake on the San Andreas Fault, some portions of the California Aqueduct are likely to fail. The east branch of the aqueduct is highly vulnerable to widespread damage from groundshaking hazards because it closely parallels the San Andreas Fault for over 100 kilometers. Moreover, the east branch crosses the fault at several locations near Palmdale (Leona Siphon and Barrel Springs) which are susceptible to surface rupture hazards. The Department of Water Resources (DWR) has installed flood control gates to mitigate any structural failure. By closing the gates upstream, the section of the Aqueduct in the Planning Area will be isolated and will not receive water. Aqueduct water present during failure will be diverted to pools which serve as detention basins. The eight pools within the Planning Area have varying storage capacities and locations as indicated by Table S-5.

Exhibit S-7 depicts the direction of flow from the pools and the locations where the Aqueduct crosses the fault at Leona Siphon and Barrel Springs. The extent and rate of inundation is speculative since the amount of water in the Aqueduct varies between seasons and years. Various factors which affect the size and extent of flooding include structural failure of the Aqueduct and pools while the Aqueduct is operating at full capacity, adjacent pools outside the Planning Area draining, and emergency power failure which could result in the Aqueduct gates not closing fast enough.

D. Fire Hazards

Wild Fires

Wildfires occur on mountains, hillsides, and grasslands. The speed and extent of their spread depends on the area's vegetation, climate, and slope. In the Planning Area, native vegetation types such as chaparral and grassland provide the fuel that allows fire to spread easily across large tracts of land. These plant species are capable of regeneration after a fire, making periodic wildfires a natural part of the ecology of these areas. The hot, dry climate of the Antelope Valley keeps the grass dry and readily combustible. The Santa Ana winds can spread fires into adjacent areas. Steep slopes bring grass and brush within reach of upward flames while impeding the access of firefighting equipment. Within Palmdale, wildfire hazards areas exist within the southern and western portions of the Planning Area. Exhibit S-16 shows wildfire hazard areas.

TABLE S-5
AQUEDUCT POOLS

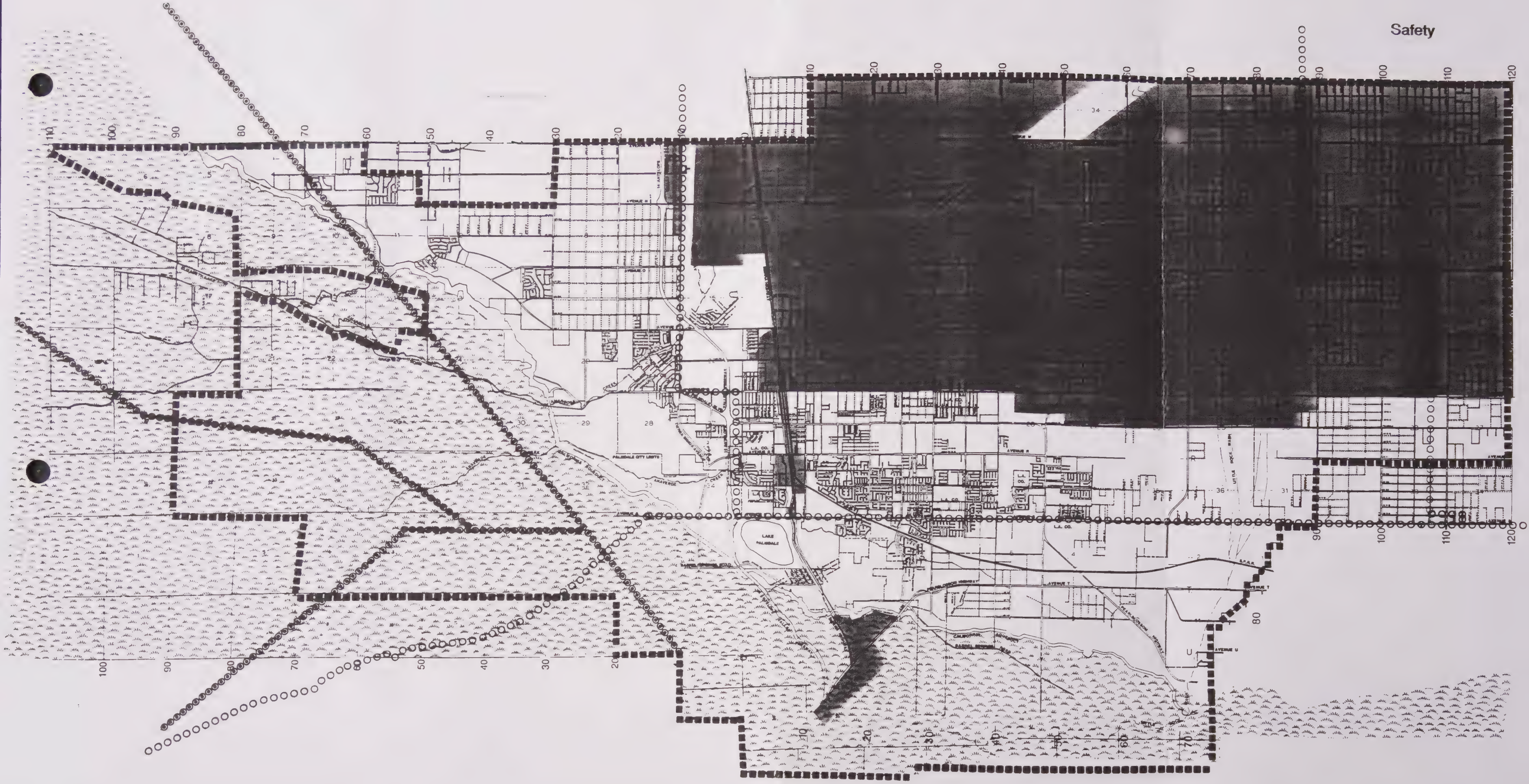
<u>Pool Number</u>	<u>Storage Acre-Feet</u>	<u>Capacity Million Gallons</u>	<u>Location</u>
49	283	92.2	70 th Street West at Avenue N to the Ritter Siphon
50	474	154.4	Quartz Hill where 50 th Street West crosses the aqueduct
51*	23	7.5	On the San Andreas Fault between Ritter Siphon and Leona Siphon
52**	138	45.0	Platt Ranch west of Lake Palmdale
53	449	146.3	At Soledad Siphon, upstream of the Palmdale Reservoir
54*	189	61.5	30 th Street East at Barrel Springs Road
55*	258	84.1	Where Cheseboro Road crosses the aqueduct at the Cheseboro Siphon
56*	<u>170</u>	<u>55.4</u>	Little Rock Siphon
Total	1,984	646.4	

*Where the California Aqueduct crosses the San Andreas Fault: the aqueduct just south of Leona Siphon and near Barrel Springs will be severely damaged by fault rupture.

**Nadeau Fault Crossing

Source: Department of Water Resources

The fire season in the Palmdale Planning Area occurs roughly from September to November when the Santa Ana winds blow. If rains are minimal, grass may dry as early as May and brush as early as July. From December to April, in the rainy season, wildfires rarely occur.

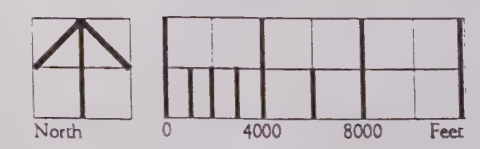


Legend

- Designated Industrial Areas
- Fire Zone 4 (Brush Areas)
- Power Transmission Line
- Gas Line

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**Wildfire Hazard Zones
Palmdale General Plan**



Wildfires may be started by various methods including: carelessly used matches, cigarettes discarded in the brush, the lack of spark arrestors in offroad vehicles, target shooting ricochets and arson. In turn, firefighters are hampered by motorists who do not yield to fire vehicles or who do not know how to provide clear passage in emergencies, as well as the steep terrain in areas where wildfires typically occur.

The fire protection services section of the Public Services Element discusses fire services in the Planning Area. Also, the valley has three fire suppression camps where jail inmates work as labor crews during major brush fires.

Urban Fires

Urban fires pose a public safety threat within developed environments, destroying buildings and other man-made structures. These disasters are often due to faulty wiring or mechanical equipment, combustible construction materials, and the absence of fire alarms and sprinkler systems. Human accidents with appliances and equipment, and the careless use of cigarettes and matches also cause urban fires. Older buildings are considered more likely to have fires since they often do not comply with present standards for fire safety construction. To minimize fire damage and loss, the Fire Department sets standards for building design and construction requiring the provision of adequate water supply for firefighting, fire retardant construction, and minimum street clearances, among other things. Fire prevention awareness programs are conducted to train residents to respond quickly and correctly in order to reduce injury and losses during fires.

In the Planning Area, fires have been largely caused due to human accidents. Fire hazards are continuously present in the form of older buildings in the City center, although high density development pockets do not exist to compound the danger.

Industrial areas, gas transmission and distribution lines, and higher voltage power lines represent potential sources of fire. The USAF Plant 42 is particularly susceptible to fire due to the nature of the industry. It has its own fire department to deal with fire hazards at the plant. Exhibit S-17 shows the location of fire hazards in Palmdale.

In order to minimize hazards associated with both wildfire and urban fires, the City and/or the Los Angeles County Fire Department will require fire protection plans, greenbelts, special access roads, fuel modification zones and non-combustible construction techniques as necessary on a case-by-case basis. The fire protection

Safety

services section of the Public Services Element describes current fire services in Palmdale.

E. Aircraft Accident Potential

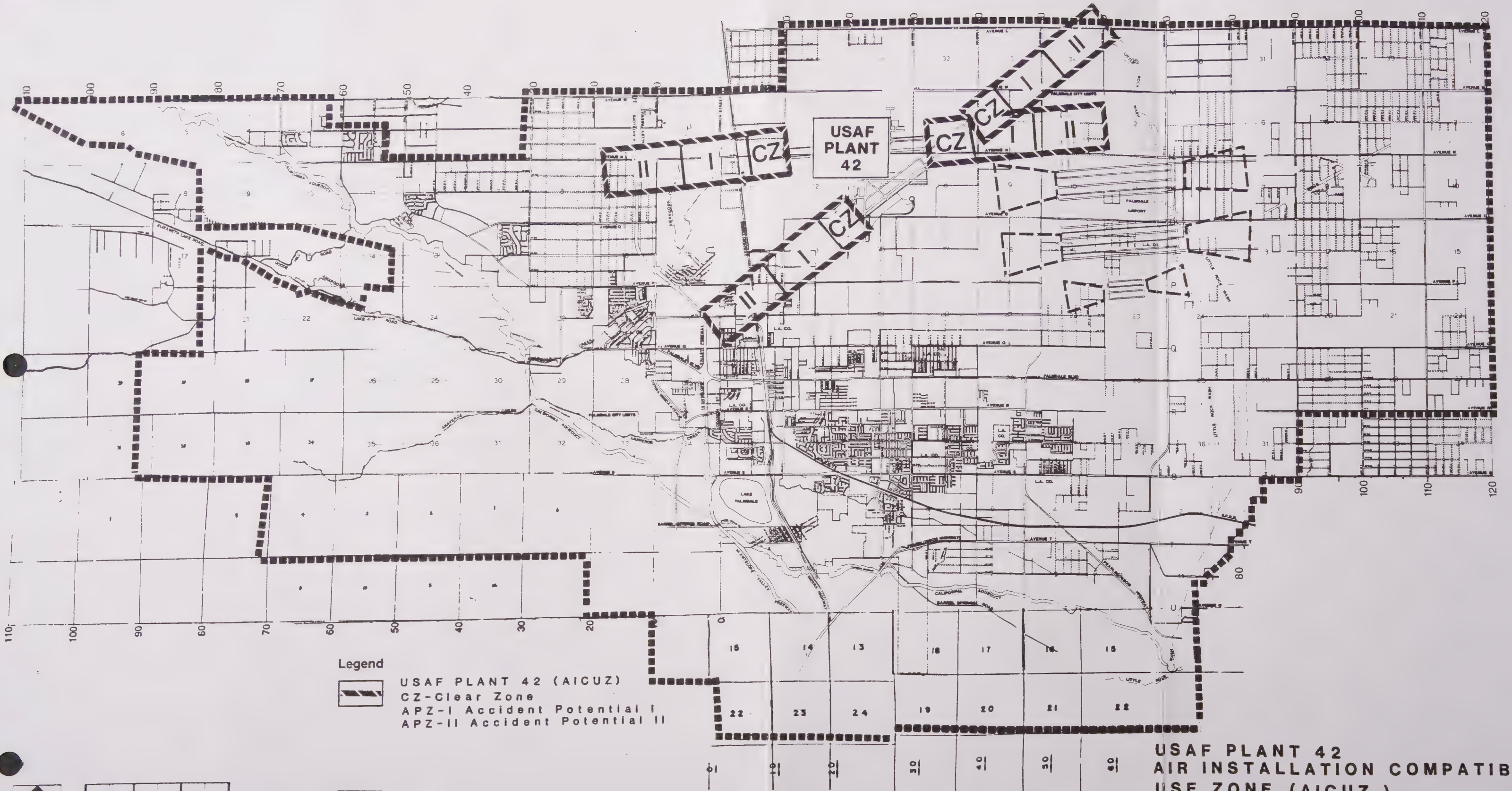
Seventy-five percent of reported aircraft accidents have occurred on or near airport runways. These accidents may cause injury, death, fire, explosion, damage to property, straining hospital facilities, disrupting traffic and utilities, and causing crowd control problems.

The presence of USAF Plant 42 in the Planning Area carries with it the potential for aircraft accidents within Air Force property and in surrounding areas. This potential will be compounded by the operation of the proposed Palmdale Regional Airport, east of the USAF Plant. The number of flights at the USAF Plant 42 fluctuate widely with an average of 250 to 300 landings per day. Almost 30 percent of these are test flights and 70 percent are training flights. Thirteen accidents have occurred at the plant since 1954, when flight records began. Five of the accidents involved civilian aircraft, four of which were mid-air collisions. The other was a result of mechanical failure. The remaining eight accidents occurred during takeoff and landing of military aircraft. Five occurred onsite, three others within a 2-mile radius of the plant.





The USAF minimizes disaster potential by following strict safety precautions and by having its own emergency personnel for crash and rescue operations. Development proposals around the plant are subject to review by the USAF to ensure compatibility with plant operations. In 1991, the City of Palmdale, City of Lancaster and the U.S. Air Force formed Joint Land Use Committee (JLUC) to discuss airport land use compatibility issues. The JLUC produced a number of policies affecting land use decisions for projects in the general vicinity of Plant 42. These policies are included within the Noise Element of the General Plan.

The increasing pressure for development in the Palmdale area will find more people living around the USAF plant in the future than at present. The JLUC policies were designed to ensure that the community will be protected from risk of aircraft accident.

Exhibit S-17 delineates aircraft crash zones for the USAF Plant 42 and the proposed regional airport. The potential for accidents is highest at the end of the runway (30



Legend

-  USAF PLANT 42 (AICUZ)
-  CZ-Clear Zone
-  APZ-I Accident Potential I
-  APZ-II Accident Potential II

-  Proposed Regional Airport Emergency Landing Zone

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**USAF PLANT 42
AIR INSTALLATION COMPATIBLE
USE ZONE (AICUZ)
Palmdale General Plan**

Adopted by City Council
1/25/93

EXHIBIT S-17

percent) and decreases with distance from the end of the runway. The Clear Zone is a 3,000-foot by 3,000-foot area at the end of the runway, within which any development would pose a major risk of life and property. The USAF Plant 42 owns this land and prohibits any form of development. Accident Potential Zone (APZ) I is 3,000 feet wide and 5,000 feet long and contains a significant risk (8 percent) and APZ II is 3,000 feet wide and 7,000 feet long with measurable potential (5 percent) for accidents.

F. Hazardous Materials/Wastes

Trace metals and chemical compounds used in industry have caused toxic pollution of the environment and harmful effects on man. The concern for the production, storage, transport, and disposal of hazardous materials and wastes arises in the wake of widely publicized health and safety problems due to improper handling.

In response to public concerns, the State has adopted legislation requiring local government agencies to prepare plans to address the handling and disposal of hazardous materials and wastes within local jurisdictions. The City will continue to comply with and support efforts to enforce these regulations.

In accordance with Assembly Bill (AB) 2948 (Tanner 1986), the City will prepare a Hazardous Waste Management Plan which will include:

- An analysis of the hazardous waste streams generated in the City.
- A description of existing hazardous waste facilities which treat, handle, recycle, and dispose of hazardous waste in the City.
- An analysis of the potential for reducing the volume of hazardous waste through recycling and source reduction.
- A consideration of the need for the management of small volumes of hazardous waste produced by businesses and households.
- A determination of the need for additional hazardous waste facilities to meet expected generation volumes.
- An identification of existing facilities that may be expanded or siting criteria to identify new hazardous waste facilities.

Safety

- A statement of goals, objectives and policies for siting of hazardous waste facilities and the general management of hazardous waste through the year 2000.
- A schedule which describes City actions necessary to implement the plan through the year 2000.

AB 2185 and 2187 (Waters, 1985 and 1986) were intended to protect public health, safety, and the environment by establishing business and area plans relating to the handling, and release or threatened release of hazardous materials/wastes. The area plan for Los Angeles County has been developed and is implemented by the Los Angeles County Fire Department. The area plan covers all of Los Angeles County and includes an inventory of hazardous materials/wastes facilities in the County, procedures for emergency notification response, pre-emergency planning measures, and public safety information. Facilities with more than a specified amount of hazardous materials/wastes onsite, must submit a business plan to the Los Angeles County Fire Department. The information in the above plans is available for public review.

No hazardous waste landfills are currently located in the Planning Area. The Antelope Valley Landfill (Palmdale Disposal) is a non-hazardous Class II landfill. Groundwater and surface waters are protected from contamination by wastes deposited at the landfill through required waste management practices in place at the landfill.

The U.S. EPA Superfund program is responsible for identifying potential hazardous waste sites and appropriate cleanup funds. The USAF Plant 42 is listed on the EPA's Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) database as a potential contamination site. The California Department of Health Services (DHS) has also identified USAF Plant 42 as a hazardous waste site targeted for clean up. Twenty-three contaminated areas were discovered in the initial assessment phase. Information available to date indicates that no hazardous waste exposure to public health or the environment exists at this time. The DHS will oversee subsequent investigation and clean-up actions and the Department of Defense will provide necessary funding. Completion of remedial actions is targeted by the State for 1996.

Several State agencies monitor hazardous materials/waste facilities. Potential and known contamination sites are monitored and documented by the DHS and the Regional Water Quality Control Board (RWQCB). A review of the leaking underground

storage tank list produced by the RWQCB, and the Hazardous Waste and Substances Sites List produced by the Office of Planning and Research, indicates that four hazardous waste sites are located in Palmdale or in the surrounding communities (see Table S-6).

If an imminent public health threat is posed by USAF Plant 42 or the sites listed in Table S-6, the City will support local regulating agencies in notifying the public.

TABLE S-6
HAZARDOUS SITES

<u>Address</u>	<u>Problem</u>	<u>Source</u>
6851 East Avenue T Littlerock	Tank Leak	WCRB
Black Gold Service Station 8157 Highway 138 Littlerock	Tank Leak	WCRB
Palmdale Regional Airport 39441 North 25 th Street Palmdale	Tank Leak	WCRB
Lockheed 2500 East Avenue M Palmdale	Tank Leak	WCRB

WCRB = Water Resources Control Board

Hazardous Sites

Transport of hazardous materials/wastes and explosives through the Planning Area is regulated by the California Department of Transportation (DOT). The Antelope Valley Freeway and Highway 138 are State routes and are open to vehicles carrying

Safety

hazardous materials/wastes. City streets and unincorporated County areas are generally not designated as hazardous materials/wastes transportation routes, but a permit may be granted on a case-by-case basis. Transporters of hazardous wastes are required to be certified by the DOT and manifests are required to track the hazardous waste during transport. Although no spills have been reported, the danger of hazardous materials/waste spills during transport exists and will potentially increase as industrial development in the Planning Area increases. At present, the Los Angeles County Fire Department is responsible for hazardous materials accidents at all locations within the City, except at USAF Plant 42, where the Air Force Fire Department is the responsible agency.

Development of industrial land in the Planning Area could increase risks associated with hazardous materials/wastes use. Programs for proper storage, handling, and disposal need to be developed according to State, Federal, and local guidelines to reduce those risks. The City will support, assist in, and undertake such programs to the extent provided by law.

G. Crime

Crime and other acts of violence undermine the community's sense of security and threaten public safety. As Palmdale develops, the increasing concentration of population will bring increasing criminal activities, even if the crime rate (number of crimes per 1,000 population) remains constant. While it is expected that individuals will take normal precautions to protect themselves from danger, the City provides additional protection from harm brought on by the malicious intent of others by contracting with the Los Angeles County Sheriff's Department for law enforcement and crime deterrence within the City boundaries. Additionally, as part of the development review process, all new projects will be reviewed for ease of patrol, accessibility and visibility in order to assist law enforcement efforts. For certain projects, the City may require provision of on-site security services. The police protection services section of the Public Services Element contains additional discussion of crime and police protection in the Planning Area.

H. Constraints

The constraints to protection of public safety are directly related to the causes of natural and man-made hazards. Natural hazards include wildfires and geologic hazards which have known causes, but precautionary measures are not always observed. Other

natural hazards, flooding and earthquakes, are less predictable and can only be avoided to the extent they can be predicted. Man-made hazards resulting from human activity include aircraft crash potential, crime, hazardous material/wastes use, and urban fires.

The following constraints limit the ability of the City to plan for and protect its residents from the effects of these hazards:

1. **Unpredictability of the Event:** The unpredictability of natural disasters is often rooted in the limited understanding of nature and its ways. Earthquakes continue to elude prediction because of an incomplete knowledge of natural forces and their interrelationship. If an effective safety strategy is to be developed, the causes of disasters and value of losses should be known. This is difficult to ascertain for natural hazards. Considerable research is still needed to determine why, when, and where disasters will occur. This knowledge is critical in planning effective public safety programs but is unavailable.
2. **Land Development Patterns Which Impede Timely Response:** As Palmdale develops, land prices increase and land use patterns are established, making it difficult to correct for safety hazards. High density development areas necessitate additional safety precautions for fire protection and emergency access. Evacuation coordination and control is more difficult, and losses of life and property are likely to be greater in densely developed areas. It is important to reserve access routes and sites for emergency facilities as development occurs.
3. **Limited Resources Available for Protection:** Public safety may be described as the preservation of human life and the protection of property. While the quantification of property damage is made in dollar amounts, the value of life and social disruption is harder to evaluate. The priority ranking of safety programs is even more difficult because of limited funds and the subjective value of safety. Still, monetary calculations seem to be the best available method of judging public safety. Government intervention is often based on total potential damage in dollars of a disaster versus the potential cost of providing preventive safety measures up front. As part of its safety planning, the City must decide how much risk it is willing to accept, and design safety measures, emergency services, and land use patterns accordingly.

Safety

4. **Human Carelessness:** The imperfection of humans will continue to create and cause hazards in the Planning Area. Carelessness in construction or in the evaluation of hazards will mean less than adequate structures to withstand disaster. Carelessness can lead to fires and accidents (plane crashes, hazardous material spills, and misuse), or may unnecessarily expose individuals to harm.
5. **Lack Of Individual Precaution:** If citizens do not take the necessary precaution and preparation to protect themselves from disaster and harm, no amount of City effort or regulation will reduce the potential for harm. Public awareness and preparation programs will show the people the best ways to avoid disaster, to protect themselves, and to prepare for a disaster.
6. **Economic Necessity for Certain Activities:** The elimination of hazards caused by human activities is directly dependent on the suspension of that activity or set of activities. This is often impossible because of higher goals and needs that override the danger posed by such activities. Aircraft flight at the USAF Plant 42 or the use of hazardous materials in industry, are two examples of hazards that are potentially avoidable but are considered necessary for the economic viability of the community.



No i s e E l e m e n t

SECTION 1: INTRODUCTION

Noise has become a key factor in our perception of the quality of our environment. Noise affects both the home and work environment, and the enjoyment of recreational activity. For these reasons, noise is an important issue in the community planning process.

The State of California has mandated that each county and city prepare a noise element as part of its general plan. California Government Code, Division 1, Planning and Zoning, Chapter 3, Local Planning, Article 5, Section 65302(f) requires a plan including:

"A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Service and shall analyze and quantify, to the extent practicable, current and projected noise levels for all of the following sources:

1. Highways and freeways.
2. Primary arterials and major local streets.
3. Passenger and freight on-line railroad operations and ground rapid transit systems.
4. Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.
5. Local industrial plants, including, but not limited to, railroad classification yards.
6. Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

The noise contours shall be used as a guide for establishing a pattern of land uses in the Land Use Element that minimizes the exposure of community residents to excessive noise. The Noise Element shall include implementation measures of

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possible solutions that address existing and foreseeable noise problems, if any. The adopted Noise Element shall serve as a guideline for compliance with the state's Noise Insulation Standards."

The purpose of this document is to comply with the state mandate, to provide an easily understood discussion of noise and its impacts, and to set guidelines to prevent noise and land use conflicts. A further discussion of the means by which this mandate is to be met by the City of Palmdale, and a discussion of the goals and guidelines implemented to achieve the relevant planning goals and objectives is contained in the following sections.

SECTION 2: GOALS, OBJECTIVES, AND POLICIES

GOAL N1: Minimize the exposure of residents to excessive noise to the extent possible, through the land planning and the development review process.

Objective N1.1: Utilize appropriate land use planning as the primary method of achieving noise compatibility among adjacent land uses.

Policy N1.1.1: Locate noise compatible land uses near existing and future air, rail and highway transportation noise sources.

Policy N1.1.2: Restrict noise sensitive land uses near existing or future air, rail or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise sensitive land use to less than 65 dBA CNEL at all exterior living spaces including but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.

Policy N1.1.3: When proposed stationary noise sources could exceed an exterior noise level of 65 dBA CNEL at present, or could impact future noise sensitive land uses, require preparation of an acoustical analysis and mitigation measures to reduce noise levels to no more than 65 dBA CNEL exterior and 45 dBA CNEL interior; if the noise level cannot be reduced to these thresholds through mitigation, the new noise source should not be permitted.

Policy N1.1.4: Consider the noise environment when making land use decisions with respect to the guidelines contained in Table N-1, and require noise standards consistent with the criteria listed on Table N-3. The State Recommended Acceptable Noise Guidelines, listed in Table N-1, are provided as guidelines only, and are not represented as standards.

Objective N1.2: Protect and maintain those areas having acceptable noise environments.

Policy N1.2.1: Locate new major noise sources in areas containing existing noise sources, and avoid their location adjacent to noise sensitive land uses unless a finding can be made, based on evidence in the record, that the

Table N-1

State Recommended Noise
Level Guidelines

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L_{dn} OR CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL - LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES						
RESIDENTIAL - MULTIFAMILY						
TRANSIENT LODGING - MOTELS, HOTELS						
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES						
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES						
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS						
PLAYGROUNDS, NEIGHBORHOOD PARKS						
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES						
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL						
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE						

LEGEND

**NORMALLY ACCEPTABLE**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

**CONDITIONALLY ACCEPTABLE**

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

**NORMALLY UNACCEPTABLE**

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

**CLEARLY UNACCEPTABLE**

New construction or development should generally not be undertaken.

CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE**A. NORMALIZED NOISE EXPOSURE INFORMATION DESIRED**

Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L_{dn} . Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated value of CNEL or L_{dn} .

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act,

residential uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn} . This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

placement of the new noise source will not result in adverse impacts to the existing noise sensitive land use.

Policy N1.2.2: Restrict construction hours during the evening, early morning and Sundays.

Policy N1.2.3: Utilize any or all of the following measures in order to maintain acceptable noise environments throughout the City:

- a. Control of noise at its source, including noise barriers and other muffling devices built into the noise source.
- b. The provision of buffer areas and/or wide setbacks between the noise source and other development.
- c. The reduction of densities, where practical, adjacent to the noise source (freeway, airport, railroad).
- d. The use of sound insulation, blank walls, double paned windows and other design or architectural techniques to reduce interior noise levels.
- e. Designation of appropriate land uses adjacent to known noise sources.

Policy N1.2.4: Where deemed appropriate based upon available information, acoustical analysis and appropriate mitigation for noise-sensitive land uses should be required in areas which may be adversely impacted by significant intermittent noise sources. Such noise sources may include but not be limited to railroads, racetracks, stadiums, aircraft overflights and similar uses.

GOAL N2: Promote noise compatible land uses within the 65 CNEL contour and the Frequent Overflight Area of Air Force Plant 42.

Objective N2.1: Ensure that land uses planned in the vicinity of Plant 42 will not be adversely affected by present and future noise levels expected to be generated by Plant 42.

Policy N2.1.1: Designate and permit land uses within the 65 CNEL contour and the Frequent Overflight Area which are primarily industrial, business park,

Noise

commercial and recreational uses which are not noise sensitive; permit other uses only when it is found that no adverse noise impacts will result.

Policy N2.1.2: Restrict noise sensitive land uses (such as residential uses, churches, schools, rest homes, or similar uses) within areas designated as within both the 65 CNEL contour and the Frequent Overflight Area.

Policy N2.1.3: In areas which are outside of the 65 dBA CNEL contour but which are within the Frequent Overflight Area, encourage establishment of compatible uses to the extent feasible.

Policy N2.1.4: Through the development review process, require that all new projects within the Accident Potential Zone (APZ) of Air Force Plant 42 provide an avigation easement. A disclosure statement indicating that the property is subject to frequent overflight and aircraft noise should be required upon sale of property within the APZ.

Policy N2.1.5: Through conditions of approval, require that any owner of developed or undeveloped property within the 65 CNEL noise contour or the low altitude overflight area which is seeking a land use action from the City, provide an avigation easement to the Los Angeles Department of Airports, the U.S. Air Force, and the City.

Policy N2.1.6: Investigate various means of obtaining avigation easements from all properties within the 65 CNEL noise contour and the low altitude overflight area, and obtain those easements to the extent feasible.

SECTION 3: IMPLEMENTATION

Noise control programs involve federal, state, county and city agencies. Table N-2 highlights noise control responsibilities by agency. Other agencies are also involved with noise control; however, those identified in Table N-2 cover the major noise issues found in the City. Through these programs, the City will limit and regulate intrusive noises that accompany development and population growth.

A. Land Use Compatibility

Introduction

The City of Palmdale can achieve a noise compatible environment through comprehensive land use planning. Proposed developments are evaluated in terms of the projected impact from future noise sources and the application of the City's objectives and policies. The City's noise compatibility criteria by land use are summarized in Table N-4 and are consistent with both federal and state standards and guidelines. Proposed residential and other noise-sensitive projects impacted by a 65 dBA CNEL or greater would require additional acoustical analysis to achieve acceptable exterior noise levels. Acceptable interior noise levels of 45 dBA CNEL or less must also be achieved.

Noise-Sensitive Land Uses Defined

"Noise-sensitive land uses" include residential (single and multi-family dwellings, mobile home parks, dormitories, and similar uses); transient lodging (including hotels, motels, and similar uses); hospitals, nursing homes, convalescent hospitals, and other facilities for long-term medical care; public or private educational facilities, libraries, churches, and places of public assembly. Each of these land uses is particularly susceptible to noise intrusions because of the nature of the use being made of the land, the expectation of the occupants regarding an appropriate noise environment, and because of the fact that, in most cases, these uses involve long-term exposure to the noise environment affecting the property. In other words, residential uses (both single-family and multi-family) involve situations where the residents have an expectation that their daily lives will not be exposed to excessive noise levels which interfere with normal residential activities, such as family conversations, entertaining, telephone use, watching television, and the ability to sleep uninterrupted by outside noise sources. Residential uses also are affected by long-term exposure to a localized noise

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environment, which can cause a cumulative level of "annoyance" among the residents because their continued exposure to the noise source(s) interferes with their normal expectations regarding an appropriate residential environment. These considerations also apply to such uses as nursing homes, convalescent hospitals or other long-term medical care facilities.

Similarly, schools (public and private) are typically categorized as "noise sensitive uses" both because the students at a noise affected facility are exposed to continuing noise environment and because the noise is particularly inconsistent with the expected activity of the school - study and instructional conversation.

Some "noise sensitive uses" do not necessarily involve long-term exposure to a noise environment but are sensitive uses nevertheless because of the intended use of the facility and the expectation (or need) of the users for a quiet environment. Libraries and churches, for example, do not involve long-term exposure, since they are typically used only on a periodic basis by any given individual. Still, people using both libraries and places of worship have a reasonable expectation that they will be able to engage in the contemplative activities normally associated with these facilities free from excessive interruptions by external noise sources.

Other Land Uses

Other land uses are not "noise sensitive," or are substantially less sensitive to noise events than residential or other similar uses. This designation does not mean that some protection against noise intrusions is unnecessary or inappropriate for these uses; but these land uses differ from sensitive uses in many respects, and consequently in how they are affected by noise impact. In large part, there are differences in public expectations regarding the urban noise environment. For example, in commercial settings where noise is a factor, the public is present only for limited periods of time, and they have a choice as to whether to patronize any particular establishment. In industrial settings, interior noise levels from industrial or manufacturing operations are often high enough that exterior noise sources are not intrusive. Certain types of recreational uses are also substantially less "noise sensitive" (e.g., golf courses) because of the relative infrequency of use and the voluntary nature of public use of such facilities.

Noise

TABLE N-2

NOISE CONTROL RESPONSIBILITY BY ACTIVITY AND AGENCY^a

<u>Agency</u>	<u>Highway Noise</u>	<u>Aviation Noise</u>	<u>Occupational Noise</u>	<u>Construction Noise</u>	<u>Land Use Compatibility</u>	<u>Building Siting</u>	<u>Complaints</u>	<u>Research</u>	<u>Product Noise</u>
<u>Federal</u>									
Department of Housing and Urban Development						X			
Department of Labor			X	X	X				
Environmental Protection Agency	X	X	X			X			X
Federal Aviation Administration	X								
Federal Highway Administration	X								
<u>State</u>									
Department of Health	X		X	X		X			X
Department of Transportation	X	X				X			
<u>County of Los Angeles</u>									
	X								
<u>City of Palmdale</u>									
City Council	X	X		X	X				
Building Department			X	X	X	X	X	X	
Planning Department	X	X	X					X	
Police Department			X						

Noise

In certain cases, there are potential land uses which are directly supportive of the activities of the facility which is the principal source of noise affecting the property. For example, there are many potential industrial, commercial, service and direct aviation support uses which could support not only the continued mission of Air Force Plant 42, but which would support and enhance the further development of that facility as a scheduled commercial air carrier facility. By directing these uses toward areas most seriously affected by noise from Air Force Plant 42, the City can allow reasonable economic use of property in the vicinity of the facility while simultaneously providing a buffer against noise intrusions into more noise sensitive areas and land uses. Encouraging development of these types of land uses in areas affected by significant and continuing noise sources, such as major arterial roadways, Air Force Plant 42, and rail yards, therefore offers the City significant planning opportunities and advantages.

For the City to achieve noise and land use compatibility, mitigation measures and/or restrictions should be imposed on future noise sensitive developments proposed within 65 dBA CNEL contours from transportation sources. The 45 dBA CNEL or less interior criteria for noise sensitive land uses must also be achieved. In addition, noise sensitive developments, proposed near existing stationary noise sources generating noise levels exceeding 65 dBA CNEL, should be discouraged.

These goals are also served by encouraging the development of compatible land uses in areas subject to continuing noise exposure from stationary or transportation sources. It is not the goal of the City to render the development of any private property economically infeasible, but to ensure that land uses are located appropriately in terms of noise sensitivity and the surrounding noise environment. Therefore, appropriate levels of protection for normally compatible uses have been established in consideration of the health and well-being of employees and the general public, as well as the need for the City to promote development uses on noise-affected properties which support the economic health and infrastructure of the entire community.

B. Acoustical Analysis Reports

The City will require acoustical analysis reports for those projects located within existing or future 60 dBA CNEL impact areas, areas subject to single-event noise episodes or as deemed necessary by the City. All acoustical analysis reports shall consider existing and future ambient and project related noise levels and shall be prepared by a qualified acoustical engineer with experience in environmental noise assessment and noise control design. Specifically, acoustical analysis reports shall include:

- Existing ambient and roadway noise levels recorded by a calibrated noise monitor.
- Roadway traffic noise level analysis models determining existing and future noise levels anticipated from proposed projects and related cumulative noise sources.
- Noise contour maps.
- Surrounding land uses with identification of sensitive noise receptors and noise sources.
- Impacts of the project to the existing ambient noise environment.
- Noise control measures where needed.
- Cumulative impacts due to related projects.
- Unavoidable adverse impacts to the project area.
- Assessment of Impacts from Single-Event Noise Episodes.

Acoustical analysis reports shall evaluate the impacts of the existing noise levels on the proposed project as well as the impact of the project on the existing noise environment. The Planning Department will evaluate projects to ensure that noise sensitive land uses, such as schools, hospitals, and residential developments, will not be located adjacent to sources of noise, when exceeding acceptable levels.

Where appropriate, the City will require acoustical analysis reports to include acoustical design for residential development adjacent to freeways or major arterials to achieve the appropriate interior and exterior noise levels through sound insulation, or other means, as indicated in Table N-3.

Noise

TABLE N-3

Land Use	Maximum Acceptable Levels		Scale
	Exterior	Interior	
Residential			
SFR	65	45	dBA CNEL
MFR	65	45	dBA CNEL
MHP	65	45	dBA CNEL
Commercial including, but not limited to: Retail Services Office	A noise level which does not jeopardize health, safety, and welfare of visitors.	55 55 55	Leq(h) Leq(h) Leq(h)
Institutional including, but not limited to: Schools Hospitals Nursing Homes	A noise level which does not jeopardize health, safety, and welfare of visitors.	45 45 45	Leq(h) Leq(h) Leq(h)
Industrial including, but not limited to: Industrial Park Business Park Quarry	A noise level which does not interfere with normal business activity. Maximum 65 Leq(h) at the interface with residentially designated land.	65 65 N/A	Leq(h) Leq(h)

Leq(h) The A-weighted equivalent sound level averaged over a period of "h" hours. An example would be Leq(12) where the equivalent sound level is the average over a specified 12-hour period (such as 7 a.m. to 7 p.m.). Typically, time period "h" is defined to match the hours of operation of a given type of use.

The Planning Department may require developments which will generate large congregations of people or maintain late nighttime hours to provide special mitigation measures, as indicated by the acoustical analysis.

C. Noise Ordinance

The City will adopt a noise ordinance which is compatible with state and federal standards. The ordinance will establish noise impact thresholds for noise abatement and attenuation, in order to reduce potential health hazards associated with high noise levels. Noise ordinances are typically directed at controlling noise from stationary sources and its intrusion onto adjacent properties. Enforcement of the noise ordinance would be an effective tool in controlling non-transportation noise sources. Noise from transportation sources is regulated by federal and state laws.

The Department of Building and Safety, the Planning Department, and the Sheriff's Department will work cooperatively to enforce the noise ordinance. The noise ordinance may include policies addressing the following issues:

- Land use compatibility.
- Restriction of hours of operation for construction equipment, power mowers, garbage collection, street sweeping, truck deliveries, leaf blowers, and other noise activities within the hours of 6:30 a.m. and 8:00 p.m., unless the work is made in response to an emergency or special purpose.
- Periodic investigation of noise sources throughout the City, with citations issued for offender, in addition to investigations conducted due to such complaints.

The Noise Ordinance shall set standards and penalties for violating the provisions contained therein. Penalties may range from warnings and monetary penalties to revocation of operating licenses for businesses.

D. General Plan Elements

The City will review other General Plan Elements for policies and programs relating to noise. Other General Plan Elements may provide important policy guidance to assist in decisions to ensure noise and land use compatibility. While all of the elements of the General Plan are related and interdependent to some degree, the Noise Element is

Noise

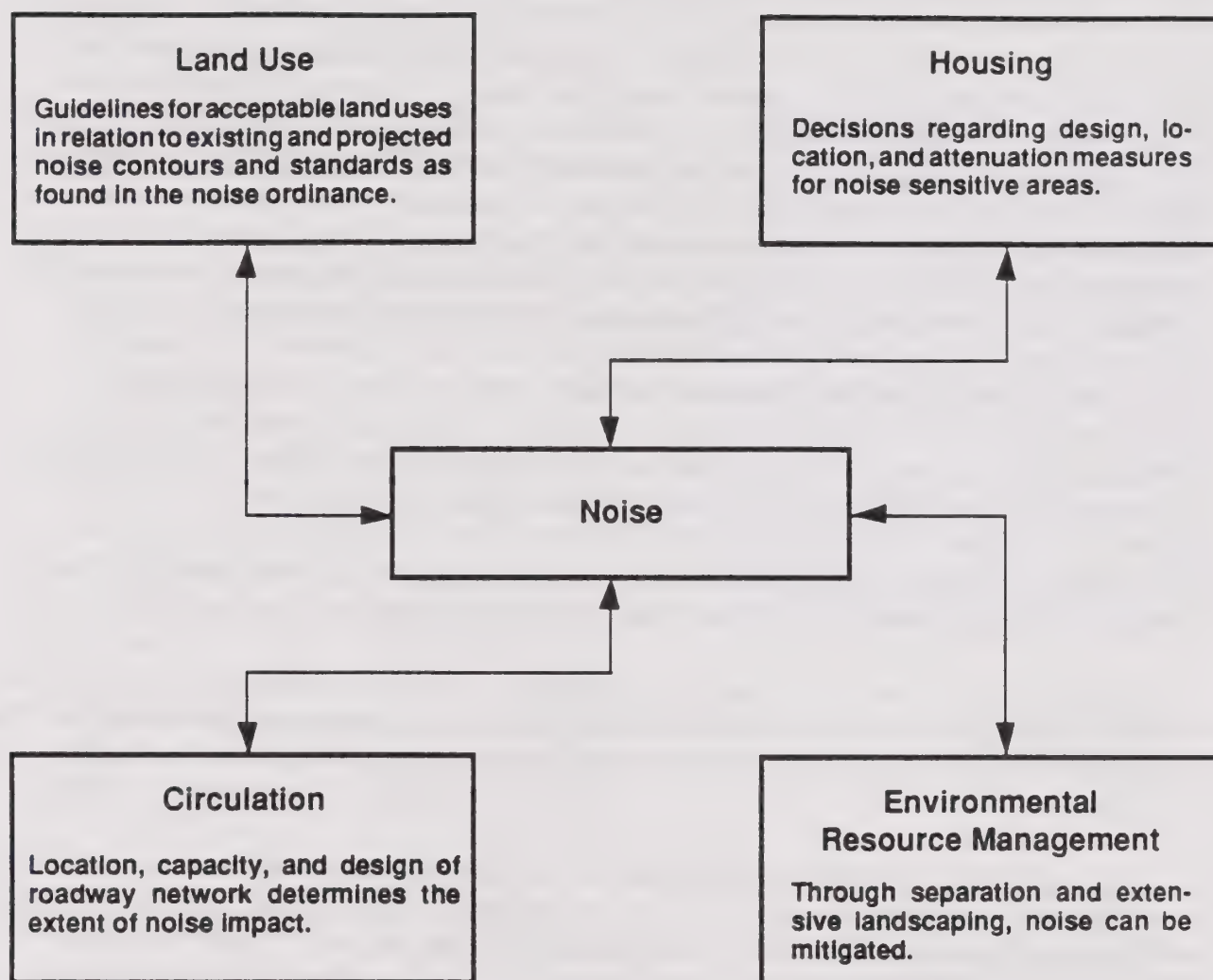
most closely related to the Land Use, Housing, Circulation, and Environmental Resources Elements as shown in Exhibit N-1.

The objective of the Noise Element is to provide guidelines to achieve compatible land uses. The Land Use and Noise Elements are, therefore, closely related. The Noise Element, by identifying noise-sensitive land uses and establishing compatibility guidelines for land use and noise, will influence the general distribution, location, and intensity of future land use. Effective land use planning can alleviate noise problems.

Residential areas are one of the most noise-sensitive land uses. Therefore, the Housing Element is directly affected by the Noise Element. Enforcement of land use and noise compatibility guidelines can reduce noise impacts in residential locations. In addition, effective noise insulation in housing construction can mitigate exterior to interior noise intrusion.

The circulation system within a city is one of the major sources of noise. Therefore, the existing and future circulation system identified in the Circulation Element will greatly influence the noise environment. The circulation routes such as the freeway, highways, truck routes and the railroad should be located to minimize noise impacts upon noise-sensitive land use. The location and design of new transportation facilities and mitigation of noise from existing and planned facilities should be assessed in order to minimize noise impacts to the extent feasible.

Since noise can adversely affect the enjoyment of quiet outdoor activities, the Noise Element is also closely related to the Environmental Resources Element. Conversely, open space, or appropriate recreational uses, can be used as a noise buffer between incompatible land uses. Generally, the identification of development which is compatible with the local noise environment, and which allows property owners to realize beneficial use of their properties, is a preferred solution in the development of noise buffers between noise sources and land uses which are incompatible with the noise source. These techniques can reduce community noise impacts and also provide usable open space for recreation, or otherwise provide useful economic infrastructure and development without the need to acquire the property from the private land owner.



Interrelationship of Noise Element with Other General Plan Elements **Palmdale General Plan**

Exhibit N-1

Noise

E. Joint Land Use Committee Policy Review

The City will review all new development applications for conformance with the Joint Land Use Committee (JLUC) policies relating to noise, as adopted by the Palmdale City Council on March 6, 1991. The JLUC policies were developed through the joint efforts of the City of Palmdale, the City of Lancaster and the United States (U. S.) Air Force to address basic air installation land use compatibility issues. These policies relate to both noise and safety issues; the safety related policies appear in the Safety Element of the General Plan. The General Plan Overlay Map shall identify the location of the 65 CNEL Contour and the Frequent Overflight Area for U. S. Air Force Plant 42.

1. Policies to govern land use within the 65 CNEL contour are as follows:

- a. Land which currently has an industrial or commercial general plan designation shall not be changed to a residential or other incompatible use.
- b. Applications (zone change, General Plan Amendment, etc.) for land use changes which increase residential density shall not be approved.
- c. Existing residential land use designations shall be examined for potential redesignation to airport compatible designations. It should also be noted that this policy does not require that we re-designate any area, only that we look at the potential.
- d. Any developed or undeveloped property which is seeking a land use action from the City shall be conditioned to provide an aviation easement to the Los Angeles Department of Airports, the U. S. Air Force, and the City.
- e. Research and develop a means of obtaining aviation easements from all properties.
- f. A Joint Air Force Plant 42/City of Los Angeles Department of Airports/City of Palmdale/City of Lancaster Part 150 Study shall be conducted to determine the need for soundproofing of existing residential development, to make Plant 42 and the surrounding communities mutually more compatible through use of FAA funding.
- g. Currently existing residential areas shall be examined to determine the potential of the redevelopment process to convert those land uses to airport compatible uses.

- h. Noise sensitive receptors shall be excluded (examples of noise sensitive receptors are hospitals and schools).
 - i. The development and zoning of residentially designated property shall be at the minimum density of the General Plan designation.
- 2. Policies to govern the land use for areas which are outside of the 65 CNEL contour but are frequently overflowed by aircraft at low altitudes for take-off, landing, and closed pattern flight activity. Typically, this line would extent as far north as Avenue K and as far south as (the southern boundary of the Frequent Overflight Area is currently being reviewed by staff and the Air Force) Palmdale Boulevard. The easterly boundary of the area would extend to 85th Street East and the westerly boundary would be 17th Street West as shown on the attached map (see Overlay Map). These recommendations recognize that existing land uses within overflight areas may be inconsistent with the guidelines; however, the recommendations reflect long-range goals of the City and the Air Force for that area. The recommendations are as follows:**
- a. Higher density residential uses shall be discouraged and that - in order of priority - industrial, commercial, and low density residential land use designations (i.e., 1 du/ac or larger lots) shall be encouraged.
 - b. Noise sensitive receptors shall be excluded (i.e. hospitals and schools).
 - c. Currently existing areas which are occupied by incompatible uses shall be examined to determine the potential of the redevelopment process to convert those land uses to airport compatible uses.
 - d. The General Plan shall designate this low altitude overflight area on the General Plan Overlay Map.
 - e. Land which currently has an industrial or commercial general plan designation shall not be changed to a residential or other airport incompatible use.

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- f. Any developed or undeveloped property which is seeking a land use action from the City shall be conditioned to provide an aviation easement to the Los Angeles City Department of Airports, the U.S. Air Force, and the City.
- g. Research and develop a means of obtaining aviation easements from all properties within this area.

JLUC Examples

Customer Intensive Uses - Customer intensive retail operations would include grocery stores, drug stores, convenience stores, theaters, shopping centers, department stores, and similar uses.

Low Customer Intensive Uses - Low customer intensive uses would include nurseries, lumber yards, contractor yards, warehousing, mini storage and similar uses.

F. Airport Land Use Commission

The City shall support the Airport Land Use Commission of Los Angeles County in planning for appropriate land uses around USAF Plant 42 through consistency of the City's General Plan with the County's Comprehensive Airport Land Use Plan. This implementation measure is further discussed in Section 3 of the Safety Element.

G. Noise Sensitive Land Uses

The City shall coordinate with appropriate agencies and developers to reduce unnecessary noise in the vicinity of noise-sensitive locations through the following actions:

- Maintain liaison with transportation agencies, such as Caltrans, regarding the reduction of noise from existing facilities and roadways. The design and location of facilities and roadways shall also be considered.
- Maintain liaison with Los Angeles County Health Department to update information on the effects and impacts of noise pollution on humans.
- Consider noise as a priority factor in evaluating residential or other noise-sensitive projects. Building orientation and configuration should be utilized to minimize or

eliminate noise problems for a sites adjacent to the freeway, arterials, or rail lines. Additional effective noise reduction tools include the use of earthen berms, sound reducing walls, and generous setbacks.

- Maintain a liaison with the Southern Pacific rail line to reduce the level of noise produced by train movement within the City, through the regular maintenance of the tracks and trains. Monitor the existing operations on the rail line, as well as any plans for future development so as to predict future noise levels.
- Enforce regulations, such as the State Vehicle Code noise standards, for City owned and City operated vehicles.

H. Noise Sources and Receptors

The City will maintain a map of receptors and sources in the Planning Area for new development in order to anticipate and/or avoid incompatible land uses. Acoustical analysis reports will be required to incorporate the receptor and source map in the report on a smaller scale.

I. Acoustical Design

The City will require developments to implement noise control measures during construction. Acoustical design shall include measures to control noise at the source, along the transmission path or at the receptor.

SECTION 4: ISSUES AND OPPORTUNITIES

A. Noise Measurement

Community noise is generally not a steady state and varies with time. Under conditions of non-steady state noise, some type of statistical scale of measurement is necessary in order to quantify noise exposure over a long period of time. Several rating scales have been developed for describing the effects of noise on people. They are designed to account for the known effects of noise on people.

A variety of different noise measurement scales or "metrics" are used for measuring noise sources with differing characteristics. The metrics typically employed for measuring community stationary and mobile noise sources are the Equivalent Noise Level (LEQ), the Day/Night Noise Level (LDN) and the Community Noise Equivalent Level (CNEL). These metrics are defined as follows:

LEQ is the "energy" average noise level during the time period of the sample. It is a number that represents a decibel sound level. This constant sound level would contain an equal amount of energy as a fluctuating sound level over a given period of time. LEQ can be measured for any time period, but is typically measured for 15 minutes, 1 hour or 24 hours.

LDN is a 24 hour, time-weighted annual average noise level. Time-weighted refers to the fact that noise which occurs during certain sensitive time periods is penalized for occurring at these times. In the LDN scale, those events that take place during the night (10 pm to 7 am) are penalized by 10 dBA. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of a day, where sleep is the most probable activity.

CNEL is similar to the LDN scale except that it includes an additional 5 dBA penalty for events that occur during the evening (7 pm to 10 pm) time period. Either LDN or CNEL may be used to identify community noise impacts within the Noise Element.

Intermittent or occasional noise such as that associated with stationary noise sources is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. To account for intermittent noise, another method to characterize noise is the Percent Noise Level (L%). The Percent Noise Level is the level exceeded X% of the time during the measurement period. Percent

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Noise Levels are another method of characterizing ambient noise where, for example, L90 is the noise level exceeded 90 percent of the time, L50 is the level exceeded 50 percent of the time, and L10 is the level exceeded 10 percent of the time. L90 represents the background or minimum noise level, L50 represents the average noise level, and L10 the peak or intrusive noise level.

B. Existing Noise Environment

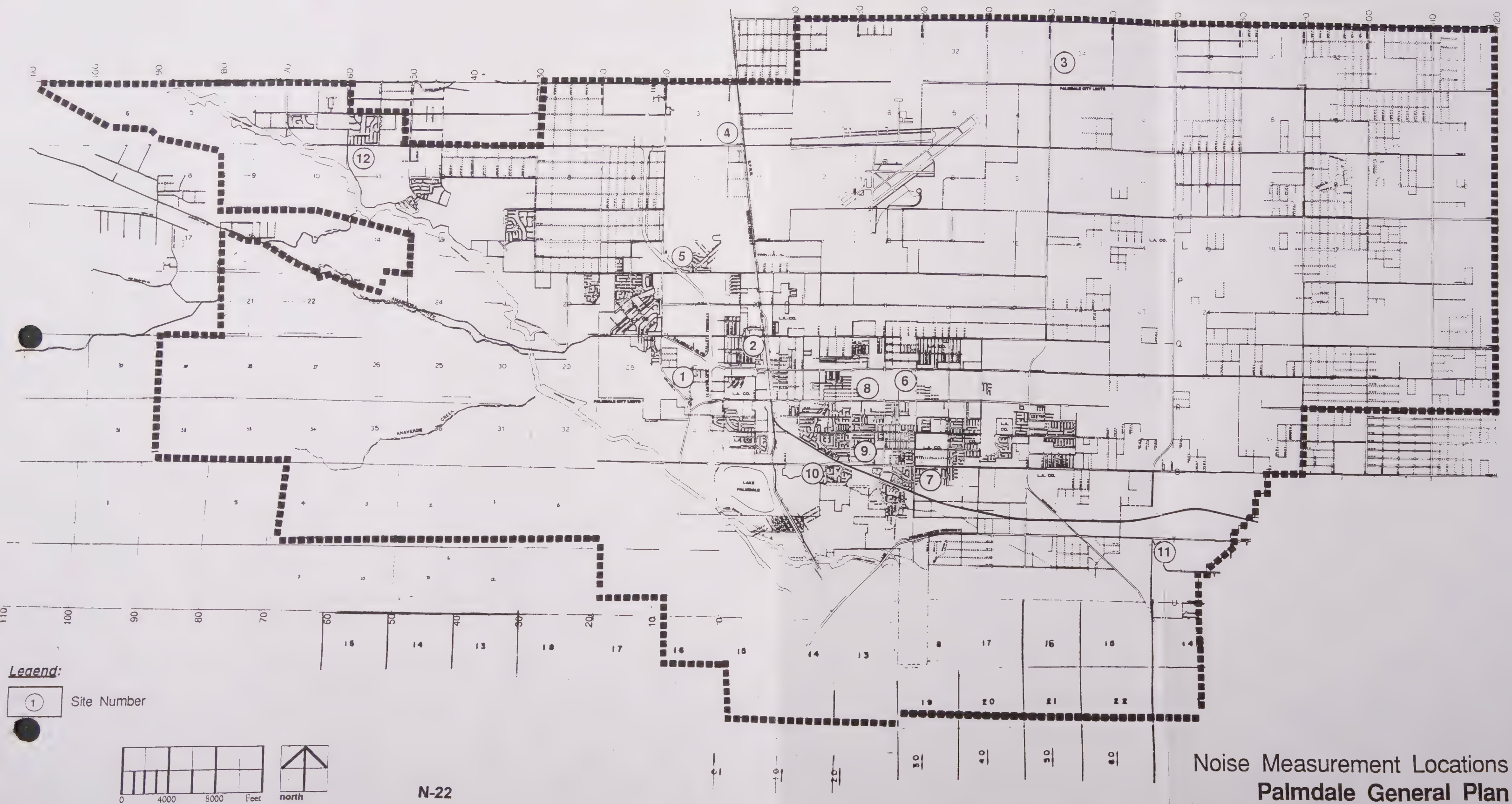
The existing noise environment in the Planning Area was documented through both a community noise survey and computer generated noise contours. The noise survey identified existing noise levels at specific locations within the City while the computer analysis predicted existing and future roadway noise levels.

Community Noise Survey

A community noise survey was conducted on November 2, 1987 to document the existing noise environment within the City of Palmdale. Noise measurements were conducted at 12 sites between the hours of 7:30 a.m. and 4:10 p.m. The noise monitoring locations are identified in Exhibit N-2 and were selected with the assistance of the Planning Department. The locations were representative of residential, commercial, industrial, public use areas, and undeveloped property.

The noise measurements indicated that the City of Palmdale has noise levels typical of urban residential communities. However, unlike other urban communities, the City of Palmdale has two unique noise sources: military aircraft and major freight rail operations. Noise from military aircraft operations was recorded at 6 of the 12 measurement locations, with the maximum aircraft departure noise levels reaching 92 to 95 dBA at Site 4. Site 4 is located within the 70 dBA CNEL noise contour from USAF Plant 42. Approaching aircraft noise levels at Site 3, which is located approximately on the 65 dBA CNEL noise contour from USAF Plant 42, were somewhat lower at 85 to 92 dBA. Aircraft noise varied throughout flyovers, with high frequencies predominating while an aircraft approached and low frequencies predominating after the aircraft had passed overhead.

Freight rail movements were measured at Sites 2 and 9. Rail noise was characterized as being of extremely long duration (several minutes) with 100 rail cars plus freight movements. The maximum locomotive noise level recorded was 99 dBA with rail cars generating noise levels of 64 to 73 dBA.



Noise Measurement Locations
Palmdale General Plan

Adopted by City Council

The noise measurement results are summarized in Table N-4 and should be used as a guide or indication of noise levels throughout the community. Maximum noise levels ranged from 53.5 to 99.0 dBA with the highest level generated by a locomotive. The second and third highest noise levels were military aircraft operations at 95 and 92 dBA. Site 12 was at a new residential development on the western boundary of the City. This site, because of its remote location and light traffic, had substantially lower noise levels than any other site.

Table N-4 also provides the sound level exceeded 10 percent (L10), 33 percent (L33), 50 percent (L50) and 90 percent (L90) of the measurement duration. While the Lmax provides the highest level measured, the L10 provides a better indication of peak noise levels that would typically be expected at the specific location. Disregarding the quiet environment, L10 of 53.0 dBA at Site 12 and the substantial number of aircraft approaches at Site 3 resulting in an L10 of 85.5 dBA, the L10 values only ranged from 63.0 to 75.5 dBA for the remaining 10 locations. The L50 values also were relatively consistent and only varied from 51.0 to 68.5 dBA. These values indicate a typical urban environment with a variety of noise sources, including roadway traffic, rail operations, aircraft and other non-transportation related activities.

L90 values are commonly termed the background noise level. Background noise levels throughout the City ranged from 45.5 dBA to 62.0 dBA. The background noise levels were less than 60 dBA for all locations except Sites 3 and 4 near Air Force Plant 42. The lowest background noise level was at Site 7, a quiet residential neighborhood. The L33 sound level is provided in Table N-5 since it is used by various federal agencies to evaluate transportation noise impacts.

The 12 sites fall into four general land use categories: residential, commercial, public use, and undeveloped property. Each of these categories is discussed below.

Residential: Sites 1, 5, 7, and 12 can all be considered residential locations. Measurements at all four residential locations included roadway traffic at slower speeds. Site 12 was a new residential development on the far west end of the City and away from major noise sources. It, therefore, had the lowest noise levels of any of the 12 sites. The four residential sites had L50 values ranging from 51.0 to 63.0 dBA. Both Sites 1 and 5 had higher noise values for two reasons: measurements included State Route 14 truck traffic noise and military aircraft flyover noise.

Noise

TABLE N-4

NOISE MEASUREMENT RESULTS BY SITE

<u>Site No.</u>	<u>Land Use</u>	<u>Lmax^a</u>	<u>L10^b</u>	<u>L33^c</u>	<u>L50^d</u>	<u>L90^e</u>
1	Residential	72.0	64.5	62.0	58.5	55.5
2	Commercial	99.0	73.0	66.5	63.5	55.0
3	Undeveloped	92.0	85.5	73.5	68.0	61.5
4	Undeveloped	95.0	75.5	70.5	68.5	62.0
5	Residential	78.0	69.0	65.0	63.0	59.5
6	Park	72.0	63.0	59.0	57.5	53.5
7	Residential	74.5	64.5	58.5	55.5	45.5
8	School	75.5	66.5	63.5	61.5	57.5
9	Undeveloped	79.0	68.5	63.5	61.5	55.5
10	Commercial	79.5	66.0	61.5	59.5	55.0
11	Undeveloped	73.5	68.0	63.5	60.5	53.5
12	Residential	53.5	53.0	52.5	51.0	49.0
Range		53.5-99.0	53.0-85.5	52.2-73.5	51.0-68.5	45.5-62.0

- a Lmax is the maximum sound level recorded during the noise measurement duration.
b Inferior L10 is the sound level exceeded 10 percent of the noise measurement duration.
c L33 is the sound level exceeded 33 percent of the noise measurement duration.
d L50 is the sound level exceeded 50 percent of the noise measurement duration.

- e L90 is the sound level exceeded 90 percent of the noise measurement duration. It is also considered the background noise level.

Commercial: Noise measurements at commercial locations included Sites 2 and 10. Commercial locations generally have slightly higher noise levels than residential locations because of the greater volumes of traffic and higher percentage of truck traffic. The L50 for these two sites ranged from 59.5 to 63.5 dBA.

Public Use: Site 6, McAdam Park, and Site 8, Sage Intermediate School, are public use facilities. McAdam Park was a quiet location as demonstrated by an L50 of 57.5 dBA. Noise levels were somewhat higher at Sage Intermediate School due to substantial traffic on Avenue R and 20th Street. The L50 at this site was 61.5 dBA.

Undeveloped Property: Sites 3, 4, 9 and 11 were representative of undeveloped locations within the City. The L50 values were as follows: Site 3, 68.0 dBA; Site 4, 68.5 dBA; Site 9, 61.5 dBA; and Site 11, 60.5 dBA. Sites 3 and 4 were on the arrival and departure ends of the primary runway at Air Force Plant 42. At Site 3, aircraft approach noise levels ranged from 68 to 92 dBA. Site 4 was approximately 4,000 feet from the primary runway at Air Force Plant 42 and aircraft departure noise ranged from 85 to 94 dBA. For comparison, traffic noise on Sierra Highway was 68 to 74 dBA at 150 feet. Sites 9 and 11 were at undeveloped locations to the southeast of the City. While Site 9 was near a residential community, a train pass-by during noise measurements resulted in higher noise levels. The L50 of 61.5 dBA was a combination of train (72 to 78 dBA) and truck (64 to 68 dBA) noise levels. Site 11, along Avenue T, had an L50 of 60.5 dBA with heavy trucks serving sand and gravel operations dominating the noise environment. Truck traffic noise levels at 150 feet ranged from 68 to 72 dBA.

Noise Contours

The Noise Element identifies both 60 and 65 dBA CNEL contours for transportation noise sources including the Antelope Valley Freeway (SR-14), Pearblossom Highway, two Southern Pacific Railroad lines (The Valley Mainline and the Colton/Palmdale Cutoff), U.S. Air Force Plant 42, and major roadways on Exhibits N-4 and N-5.

A 65 dBA CNEL level describes an area as having a time-average constant sound level of roughly 65 dBA even though the area would experience individual sound events higher and lower than 65 dBA. CNEL provides a common measure for a variety of

Noise

differing noise environments. Thus, the same CNEL can describe both an area with very few high noise events and an area with many low level events.

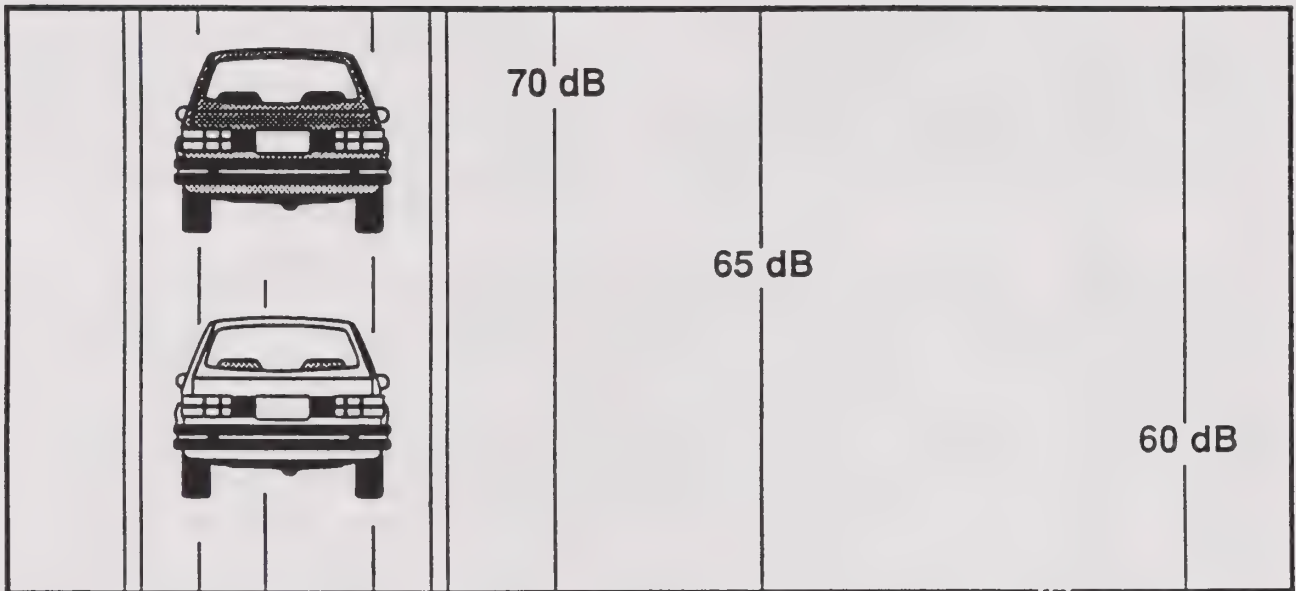
CNEL values can be useful in comparing noise environments and indicating the potential degree of adverse noise impacts. However, the CNEL scale has limitations in its usefulness through averaging the sound event levels over a 24-hour period and possibly obscuring the periodic high noise levels of individual events and their possible adverse effects. In recognition of this limitation, the Environmental Protection Agency (EPA) has adopted maximum single event noise impacts levels for sources such as buses, garbage trucks, and railroad equipment.

Note that CNEL is not a measure but a computation of measured sound levels. People do not "hear" CNEL, but respond to the sound levels of individual events or noise sources. People may integrate their response to noise over long-term intervals (daily, weekly, etc.) and make subjective judgments about the "quality" of the noise environment. This is one reason why CNEL may not be the most appropriate noise descriptor for land uses which do not involve continuous "long-term" exposure to the noise source occurring regularly over a 24 hour period.

The noise contours represent lines of equal noise exposure (see Exhibit N-3), just as the lines on a weather map indicate equal temperature or atmospheric pressure. The contours provide a visualization of estimates of sound level. Land forms and man-made structures have very complex effects on sound transmission and on noise contours. Generally, barriers between a source and receiver absorb and/or reflect noise resulting in a quieter environment. Where barriers or land forms do not interrupt the noise transmission path from source to receiver, the contours prove to be good estimates of the average noise level. In areas where barriers or land forms interrupt the sound transmission, the noise contours overestimate the extent to which a source intrudes into the community. Unfortunately, it is virtually impossible for the Noise Element to analyze each roadway segment of the City for barrier noise attenuation. Therefore, where specific projects are proposed within noise impacted areas, an acoustical analysis should be completed to evaluate the noise reduction provided by any barriers to the noise path.

CNEL values have been shown to be closely related to, and often within, 1dB of LDN values, a noise metric commonly used by federal agencies.

EXHIBIT N-3



Example of Noise Contours
Palmdale General Plan

Noise

The noise contour analysis focused on transportation noise generators, which typically cause a constant increase in ambient noise levels. Specific findings of these studies are as follows:

Aircraft Noise: The U. S. Air Force Plant 42 is located in the City of Palmdale, east of the Sierra Highway and north of Avenue P. Aircraft noise contours (65, 70 and 80 dBA CNEL contours) for the U. S. Air Force Plant 42 were provided by the Department of the Air Force (AFSC Master Plan Air Installation Compatible Use Zone Map, August 1990). The noise contours reflect both aircraft operations and engine run-ups.

Railroad Noise: The Southern Pacific Railroad Company operates two rail lines through the City of Palmdale. The Valley Mainline runs north/south and operates adjacent to Sierra Highway. The Colton/Palmdale Cutoff branches from the Valley Mainland south of Avenue R and runs east. Railroad noise levels were calculated using the U. S. Department of Housing and Urban Development Noise Assessment guidelines. The following assumptions (based on information provided by S.P.R.R.) were made in the analysis of the Valley Mainline operations: 20 diesel trains per 24-hour period, 15 percent of the operations occurring at night; 4 diesel locomotives per train; 120 rail cars per train; average speed of 55 mph; welded tracks; and whistles required for grade crossings. The above assumptions also hold for the Colton/Palmdale Cutoff, with the exception that 10 trains operate on the line in a 24-hour period. The 60 and 65 dBA CNEL contours for the two rail lines were generated from this analysis.

Roadway Noise: The City of Palmdale roadway noise contours were generated with the Federal Highway Administration's Highway (FHWA) Traffic Noise Prediction model, U.S. Department of Transportation (1978). This model was modified to generate CNEL values. Model input data included existing and projected average daily traffic volumes (provided by DKS Associates, 1989); day/evening/night percentages of autos, and medium and heavy trucks; vehicle speeds; ground attenuation factors (soft sight conditions were assumed); and roadway widths.

The results of the FHWA model analysis are summarized in Table N-5 which gives the distance from the roadway center line at the 60, 65 and 70 dBA CNEL contours, and the CNEL level at 50 feet away from the roadway centerline.

Table N-5

EXISTING ROADWAY NOISE LEVELS (CNEL)

Roadway	From/To	Distance (in feet) From Roadway Centerline to CNEL			CNEL (dB) at 50 Feet
		70 CNEL	65 CNEL	60 CNEL	
<u>East/West Arterials</u>					
Avenue L	50th St. W/40th St. W	<50	6	130	64.4
	40th St. W/25th St. W	<50	95	201	67.3
	25th St. W/Hwy 14	<50	109	231	68.2
	Hwy 14/Sierra Hwy	<50	75	159	65.7
Avenue M	50th St. W/30th St. W	<50	66	142	66.1
	30th St. W/10th St. W	<50	62	132	65.6
	10th St. W/10th St. E	<50	104	222	67.9
	10th St. E/30th St. E	<50	85	180	66.6
Avenue N	30th St. W/Hwy 14	<50	64	138	65.9
Avenue P	10th St. W/Sierra Hwy	73	153	328	70.5
	Sierra Hwy/30th St. E	69	145	311	70.1
	30th St. E/50th St. E	<50	79	170	67.3
	30th St. W/10th St. W ^a				
Avenue Q	20th St. W/Palmdale Blvd.	<50	56	120	65.0
	Sierra Hwy/10th St. E	<50	53	114	64.7
Elizabeth Lake	W of Bonquet Canyon Rd.	<50	<50	81	62.5
	Bonquet Cyn Rd/Grande Hill	<50	58	124	65.2
	Godde Hill/Foxholm Dr.	<50	<50	62	60.7
	Foxholm Dr./Palmdale Blvd.	<50	59	121	63.9
Palmdale Blvd. (Hwy 14)	10th St. W/Hwy 14	<50	95	200	66.8
	Hwy 14/20th St. E	291	626	1,347	79.3
	20th St. E/30th St. E	246	527	1,135	78.2
	30th St. E/40th St. E	216	464	998	77.3
	40th St. E/50th St. E	183	392	844	76.2
	50th St. E/90th St. E	0	97	205	67.4

^a ADT less than 500, thus, not calculated.

Noise

TABLE N-5
(Continued)

Roadway	From/To	Distance (in feet) From Roadway Centerline to CNEI			CNEI (dB) at 50 Feet
		70 CNEI	65 CNEI	60 CNEI	
Avenue R	Tierra Subida/Division St.	<50	<50	<50	58.9
	Division St./10th St. E	<50	67	143	66.2
	1<50th St. E/25th St. E	<50	76	161	65.3
	25th St. E/30th St. E	<50	96	206	68.0
	30th St. E/40th St. E	<50	79	169	67.2
	40th St. E/50th St. E	<50	58	125	65.3
Avenue R-8	12th St. E/25th St. E	<50	55	117	64.9
Avenue S	City Ranch Bypass/Tierra Subida	<50	<50	87	62.9
	Tierra Subida/Hwy 14	<50	<50	87	62.9
	Hwy 14/Sierra Hwy	<50	97	209	68.6
	Sierra Hwy/35th St. E	<50	99	211	68.1
	35th St. E/50th St. E	<50	67	144	66.2
Avenue T	Pearblossom Hwy/90th St. E	<50	100	216	68.8
	90th St. E/120th St. E	<50	102	219	68.9
Pearblossom Hwy (SR-138)	Sierra Hwy/Barrel Springs	152	327	703	75.5
	Barrel Springs/40th St. E	131	281	606	75.6
	40th St. E/Avenue T	131	281	606	75.6
	Avenue T/90th St. E	172	370	798	77.4
	90th St. E/120th St. E	172	370	798	77.4
Barrel Spgs.	Tierra Subida/Sierra Hwy.	<50	<50	<50	55.6
	Sierra Hwy/40th St. E	<50	<50	71	61.6
<u>North/South Arterials</u>					
Bouquet Canyon Rd.	South of Elizabeth Lake Rd.	<50	<50	<50	58.2
Godde Hill	60th St. W/Elizabeth Lake Rd.	<50	<50	72	61.7
50th St. W	Avenue M/Avenue K	<50	<50	105	64.1
30th St. W	North of Avenue J	<50	<50	106	64.2
	Avenue J/Avenue K	<50	69	147	66.3
	Avenue K/Avenue L	<50	85	183	67.8
	Avenue L/Avenue N	<50	58	124	65.2
25th St. W	Avenue P/Avenue P-8	<50	<50	<50	55.6
	Avenue P-8/Elizabeth Lake	<50	<50	<50	56.9

TABLE N-5
(Continued)

<u>Roadway</u>	<u>From/To</u>	<u>Distance (in feet) From Roadway Centerline to CNEL</u>			<u>CNEL (dB) at 50 Feet</u>
		<u>10 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
20th St. W	North of Avenue K	<50	94	202	68.4
	Avenue K/Avenue L	<50	64	137	65.9
	Avenue L/Avenue M	<50	<50	106	64.2
10th St. W	North of Avenue K	72	155	334	71.7
	Avenue K/Avenue M	56	120	259	70.0
	Avenue M/Avenue N	51	108	233	69.3
	Avenue N/Avenue P	51	108	233	69.3
	Avenue P/Palmdale Blvd.	<50	89	191	68.0
Tierra Subida	Palmdale Blvd./S of Palmdale Blvd.	<50	<50	101	63.9
	S of Palmdale Blvd./Avenue R	<50	<50	101	63.9
	Avenue R/Avenue S	<50	<50	55	59.9
	Avenue S/Barrel Springs Rd.	<50	<50	<50	56.4
Sierra Hwy	Avenue M/Avenue P	85	179	383	71.5
	Avenue P/Avenue Q	69	145	310	70.1
	Avenue Q/Palmdale Blvd.	69	145	310	70.1
	Palmdale Blvd./Avenue R-8	<50	93	196	67.2
	Avenue R-8/Avenue S	<50	92	197	68.2
	Avenue S/1200' S of Avenue S	<50	<50	102	64.0
	1200' S of Avenue S/ 3000' N of Barrel Springs	<50	<50	104	62.9
	Soledad Cyn Rd./Pearblossom Highway	<50	86	183	66.6
	Pearblossom Hwy/Hwy 14	<50	103	220	67.9
10th St. E	North of Avenue J	<50	83	179	67.6
	Avenue J/Avenue K	<50	67	144	66.2
	Avenue K/Avenue M	<50	<50	104	64.0
20th St. E	Palmdale Blvd./Avenue S	<50	75	160	66.9
25th St. E	Avenue P/Palmdale Blvd.	<50	<50	92	63.3
	Palmdale Blvd./Avenue S	<50	73	156	66.7
	Avenue S/4200' S of Avenue S	<50	60	125	64.1
	4200' S of Avenue S/ Barrel Springs Rd.	<50	60	125	64.1
30th St. E	Avenue P/Avenue Q	<50	<50	75	61.9
	Avenue Q/Avenue S	<50	85	182	67.1

Noise

TABLE N-5
(Continued)

<u>Roadway</u>	<u>From/To</u>	<u>Distance (in feet) From Roadway Centerline to CNEL</u>			<u>CNEL (dB) at 50 Feet</u>
		<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
47th St. E	Palmdale Blvd./Avenue S	72	148	315	69.8
	Avenue S/Fort Tejon Rd.	72	148	315	69.8
50th St. E	Avenue M/Avenue P	<50	90	194	68.1
	Avenue P/Palmdale Blvd.	<50	90	194	68.1
	Palmdale Blvd./Avenue S	<50	104	225	69.1
Hwy 14	North of Avenue J	293	629	1,354	73.9
	Avenue J/Avenue K	325	699	1,505	79.6
	Avenue K/Avenue M	363	779	1,677	80.3
	Avenue M/LA. Forest Hwy	373	801	1,734	80.5

A graphic display of the noise contours for the existing major transportation noise sources is provided in Exhibit N-4. The 60, 65, 70 and 80 dBA CNEL contours are provided, showing the integrated effect from all transportation noise sources (aircraft, railway, and roadways where the CNEL contour is greater than 200 feet from the roadway centerline). The noise contours represent unmitigated conditions. Therefore, on roadways where walls, berms, or structures block the noise path, the contours overestimate the noise impact.

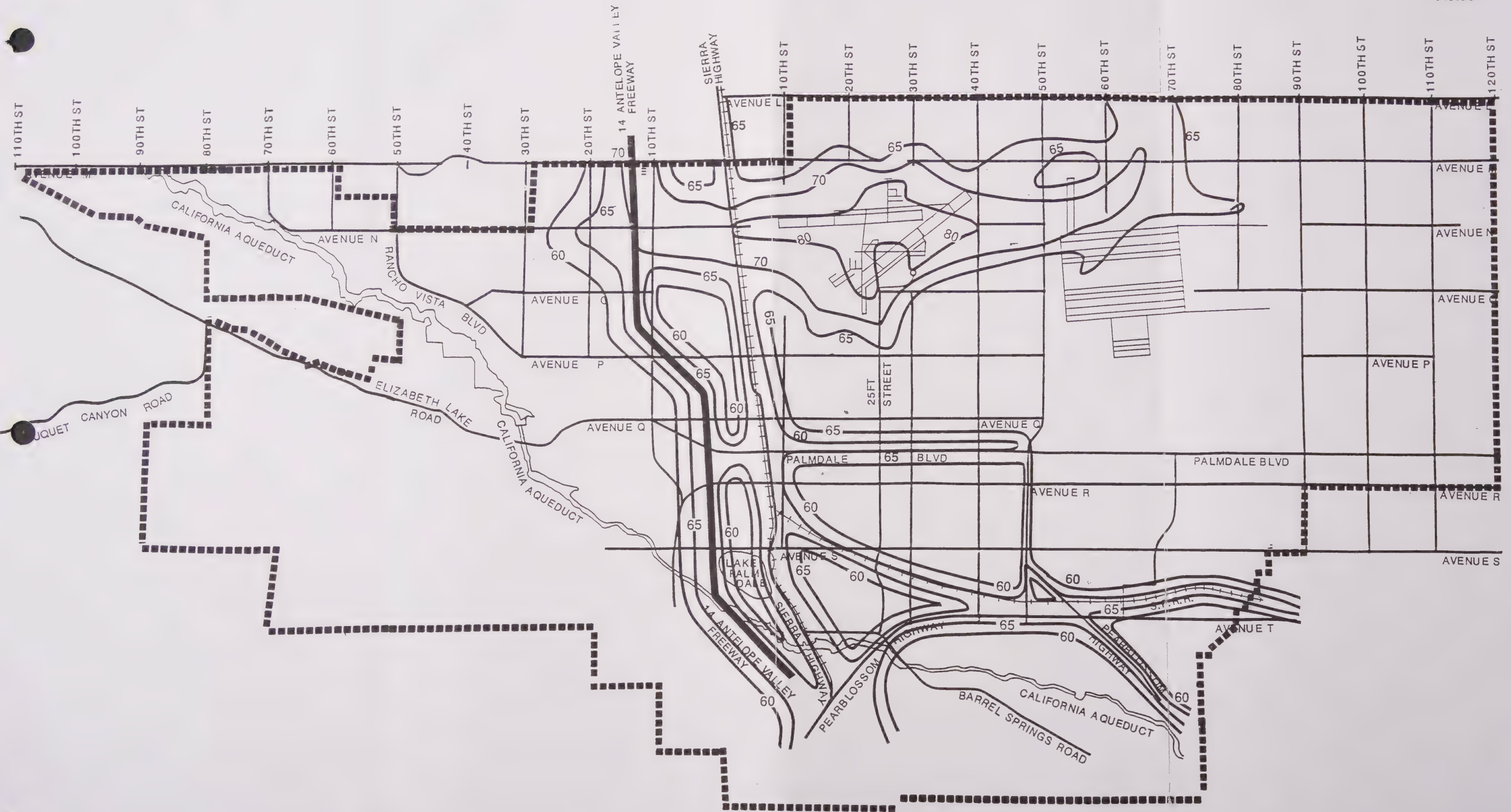
The population within each CNEL zone has been estimated in order to identify the number of persons that are impacted by transportation noise. There are approximately 10,000 residents within the City that are exposed to noise levels exceeding 65 dBA CNEL, and approximately 20,000 residents that are exposed to noise levels between 60 and 65 dBA CNEL.

Interpretation of Transportation Noise Contours

Exhibit N-4 displays the 80, 70, 65 and 60 dBA CNEL noise contours that were generated using the FHWA noise model for existing transportation noise sources in the City of Palmdale. The contours portray areas of equal noise level within that contour.

The dominant feature on this exhibit is the 65 dBA CNEL contour generated by the U. S. Air Force Plant 42. The contour is roughly oval in shape and covers an area from Avenue L-8 on the north to Avenue P on the south, and from 20th Street West to 130th Street East. The existing land uses in the area encompassed by the 65 dBA CNEL contour are the U.S. Air Force Plant 42, open space, industrial, and a few rural residential homes to the north of the plant.

State Route 14 transects the City from north to south and generates a 60 dBA CNEL contour that extends approximately 1,500 feet from the roadway centerline. A substantial number of both single- and multiple-family residential dwellings are located within this 60 dBA CNEL contour.



N-34

Existing Transportation Noise Contours
Palmdale General Plan

Adopted by City Council
1/25/93

EXHIBIT N-4

The Sierra Highway and the Valley Mainline Railroad run north/south and parallel to one another approximately 6,000 feet to the east of State Route 14. The combined noise levels of the Sierra Highway and the Valley Mainline generate a 60 dBA CNEL contour that extends approximately 1,800 feet from their centerpoints. The majority of the land uses in the area impacted by the 60 dBA CNEL contour are commercial and industrial. However, single and multiple-family residential dwellings are located within the 60 dBA CNEL contour, as well.

The Colton/Palmdale Cutoff railroad line, which branches off from the Valley Mainline Railroad at Avenue R and extends to the east, generates a 60 dBA CNEL contour that extends 1,000 feet from the railway centerline and affects single-family residential dwellings.

From 30th Street East to 60th Street East, Pearblossom Highway/Avenue T and the Colton Cutoff railroad line run parallel from east to west. Their noise levels combine to generate a 60 dBA CNEL that extends approximately 2,000 feet from their centerpoint. Rural residential dwellings lie within this 60 dBA CNEL contour.

The section of Palmdale Boulevard from the Antelope Valley Freeway to 47th Street East generates a 60 dBA CNEL contour that extends approximately 1,000 feet from the roadway centerline. Land use types within this contour are mostly commercial, but also impacted are single-family residential dwellings.

C. Future Noise Environment

Future average daily traffic volumes (provided by DKS Associates, 1989) were used in the FHWA Traffic Noise Prediction Model to generate future CNEL noise contours. The results of the analysis for future conditions are summarized in Table N-6, which gives the distance from the roadway centerline to the 60, 65 and 70 dBA CNEL contours, and the CNEL level at 50 feet from the roadway centerline. Airport noise contours taken from AFSC Master Plan, Air Installation Compatible Use Zones (AICUZ), August 1990, were incorporated into this report.

Future noise contours from the railroad and Plant 42 are depicted in Exhibit N-5 (Exhibit N-5 is provided as a separate large blue-line map). The 60, 65, 70 and 80 dBA CNEL contours are provided, showing the integrated effect from all transportation noise sources (railway, airport and roadways where the 60 dBA CNEL contour is greater than 200 feet from the roadway centerline). The roadway noise contours represent

Noise

unmitigated conditions. Therefore, on roadways where walls, berms, or structures block the noise path, the contours overestimate the noise impacts. Exhibit N-5 shows the air installation compatible use zone noise contours developed by Force Plant 42 in 1990. The City of Los Angeles and the U. S. Air Force have reached a joint-use agreement allowing up to 400 commercial operations (take-offs or landings) per day on the northeast/southwest runway of the plant. Exhibit N-5 includes the addition of commercial flights which increased the size of the noise contours.

The population within each CNEL zone has been estimated in order to identify the number of persons that will be impacted by transportation noise. At the time of General Plan build-out, approximately 21,000 residents within the City will be exposed to noise levels exceeding 65 dBA CNEL, and approximately 28,000 residents will be exposed to noise levels between 60 and 65 dBA CNEL.

A comparison of Exhibit N-4 (existing noise contours) with Exhibit N-5 (future noise contours) shows that the transportation noise levels are expected to increase in the future. The discussion of land uses impacted within specified noise levels holds for the future also, with the exception that the noise contours are pushed outward from the roadways to encompass a larger area due to increased noise levels and, thus, will impact a greater area. A summary of noise impacts by source is provided in Table N-7.

Noise Impacts

The effects of 60 and 65 dBA CNEL on residents is summarized in Table N-8. The existing and future noise contours identify areas where outdoor speech interference can occur and a small percentage of the population will be highly annoyed. However, noise mitigation measures, such as berms and walls located between a noise source and receiver would reduce noise impacts.

TABLE N-6
FUTURE ROADWAY NOISE LEVELS (CNEL)

Roadway From/To		Distance from Roadway Centerline to CNEL (in feet) ^a			CNEL 50 feet from Centerline of the Near Travel Lane
		70 CNEL	65 CNEL	60 CNEL	
East/West Arterials					
Ave L	10th St E/20th St E	158	327	698	73.7
	20th St E/40th St E	152	315	673	73.4
	40th St E/50th St E	140	287	611	72.8
	50th St E/90th St E	105	207	436	70.6
	90th St E/110th St E	113	226	478	71.2
Ave L-8	10TH St E/20th St E	< 50	104	220	67.4
	20th St E/50th St E	< 50	83	172	65.8
Ave M	90th St W/75th St W	< 50	59	119	63.3
	75th St W/60th St W	< 50	111	230	67.0
	60th St W/30th St W	106	218	465	71.6
	30th St W/15th St W	151	311	664	73.4
	15th St W/SR-14	161	335	715	73.8
	SR-14/Sierra Hwy	168	350	748	74.1
	Sierra Hwy/Division St	203	428	918	75.5
	Division St/10th St E	156	323	690	73.6
	10th St E/15th St E	158	327	698	73.7
	15th St E/50th St E	147	303	647	73.2
	50th St E/90th St E	74	145	304	68.8
	90th St E/120th St E	< 50	96	201	66.8
Ave M-8	70th St W/55th St W	< 50	96	201	66.8
	55th St W/45th St W	< 50	66	134	64.1
	45th St W/30th St W	< 50	63	128	63.8
Ave N	70th St W/60th St W	61	124	263	68.6
	60th St W/25th St W	110	226	481	71.8
	25th St W/SR-14	110	226	481	71.8
	SR-14/10th St W	106	218	465	71.6
	10th St W/Sierra Hwy	74	145	304	68.8
	2000' W of 40th St E				
	/90th St E	80	158	334	69.4
	90th St E/120th St E	< 50	111	230	67.0
Ave N-8	Rancho Vista Blvd				
	/30th St W	76	149	314	69.0
	10th St W/Sierra Hwy	< 50	63	128	63.8

Noise

TABLE N-6

(Continued)

		Distance from Roadway Centerline to CNEL (in feet) ^a			CNEL 50 feet from Centerline of the Near Travel Lane
<u>Roadway From/To</u>		<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
Ave O	Rancho Vista Blvd				
	/30th St W	76	149	314	69.0
	30th St W/10th St W	101	207	441	71.3
	10th St W/Sierra Hwy	84	167	353	69.8
	90th St E/120th St E	69	131	274	68.1
Ave O-8	Rancho Vista Blvd				
	/10th St W	< 50	96	201	66.8
Rancho Vista Blvd					
	50th St W/Towncenter Dr	96	195	415	70.9
	Towncenter Dr/30th St W	110	226	481	71.8
Ave P	30th St W/15th St W	108	222	473	71.7
	15th St W/10th St W	116	240	513	72.2
	10th St W/Sierra Hwy	125	261	558	72.8
	Sierra Hwy/8th St E	103	211	449	71.4
	8th St E/20th St E	108	222	473	71.7
	20th St E/30th St E	105	215	457	71.5
	30th St E/50th St E	91	183	389	70.4
	90th St E/110th St E	98	199	424	71.0
Ave P-8	30th St W/25th St W	< 50	87	182	66.2
	25th St W/15th St W	60	120	255	68.4
	15th St W/SR-14	60	120	255	68.4
	SR-14/3RD St E	< 50	108	229	67.7
	3rd St E/Sierra Hwy	< 50	108	229	67.7
	Sierra Hwy/10th St E	< 50	92	192	66.5
	10th St E/40th St E	56	112	238	67.9
	40th St E/50th St E	< 50	< 50	104	62.4
	50th St E/90th St E	< 50	78	162	65.4
Ave Q	Palmdale Blvd				
	/Division St	108	222	473	71.7
	Division St/6th St E	103	211	449	71.4
	6th St E/Sierra Hwy	106	218	465	71.6
	Sierra Hwy/20th St E	106	218	465	71.6
	20th St E/40th St E	110	226	481	71.8
	40th St E/60th St E	113	233	497	72.0
Santa Fe Hills Dr					
	Elizabeth Lake Rd				
	/25th St W	< 50	100	211	67.1

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Noise

TABLE N-6

(Continued)

		Distance from Roadway Centerline to CNEL (in feet) ^a			CNEL 50 feet from Centerline of the Near Travel Lane
<u>Roadway From/To</u>		<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
Elizabeth Lake Rd					
	Godde Hill Rd/Bridge Rd	56	112	238	67.9
	Bridge Rd/25th St W	130	271	580	73.1
	25th St W/Foxholm Dr	149	307	655	73.3
	Foxholm Dr				
	/Palmdale Blvd	158	327	698	73.7
Palmdale Blvd					
	Elizabeth Lake Rd/SR-14	147	303	647	73.2
	SR-14/Division St	165	342	732	74.0
	Division St/30th St E	122	254	543	72.6
	30th St E/47th St E	103	211	449	71.4
	47th St E/70th St E	93	187	398	70.6
	70th St E/90th St E	74	145	304	68.8
	90th St E/120th St E	86	171	362	70.0
City Ranch Rd					
	Ritter Ranch Rd				
	/Ranch Center Dr	< 50	< 50	84	62.1
	Ranch Center Dr				
	/Bridge Rd	68	139	295	69.4
	Bridge Rd				
	/Tierra Subida Ave	< 50	83	172	65.8
Ave R					
	Tierra Subida Ave				
	/Division St	110	226	481	71.8
	Division St/6th St E	108	222	473	71.7
	6th St E/25th St E	106	218	465	71.6
	25th St E/30th St E	98	199	424	71.0
	30th St E/47th St E	106	218	465	71.6
	47th St E/60th St E	100	203	432	71.1
	60th St E/70th St E	< 50	84	168	64.8
	70th St E/90th St E	71	136	284	68.4
Ave R-8					
	Division St/6th St E	69	142	303	69.5
	6th St E/10th St E	69	142	303	69.5
	10th St E/25th St E	71	146	311	69.7
	25th St E				
	/1200' W of 30th St E	65	132	279	69.9
	1200' W of 30th St E				
	/1200' E of 35th St E	74	153	326	70.0
	1200' E of 35th St E				
	/40th St E	69	142	303	69.5

Noise

TABLE N-6

(Continued)

<u>Roadway From/To</u>	<u>Distance from Roadway Centerline to CNEL (in feet)^a</u>			<u>CNEL 50 feet from Centerline of the Near Travel Lane</u>
	<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
Ave R-8 40th St E				
/1800' E of 47th St E	65	132	279	69.0
1800' E of 47th St E				
/70th St E	82	169	362	70.7
70th St E/90th St E	58	116	246	68.2
Ritter Ranch Rd				
Elizabeth Lake Rd				
/City Ranch Rd	< 50	96	201	66.8
City Ranch Rd				
/Ranch Center Dr	< 50	96	201	66.8
Ranch Center Dr				
/Bridge Rd	84	167	353	69.8
Ave S Bridge Rd				
/Tierra Subida Ave	114	237	505	72.2
Tierra Subida Ave/SR-14	93	187	398	70.6
SR-14/Sierra Hwy	115	230	488	71.3
Sierra Hwy/10th St E	147	303	647	73.2
10th St E/20th St E	132	270	575	72.4
20th St E/25th St E	113	226	478	71.2
25th St E/35th St E	142	291	620	72.9
35th St E/47th St E	123	249	527	71.8
47th St E				
/3800' E of 47th St E	97	187	393	69.9
3800' E of 47th St E				
/60th St E	78	154	324	69.2
60th St E/70th St E	67	126	263	67.9
70th St E/90th St E	71	136	284	68.4
90th St E/110th St E	93	187	398	70.6
Ave S-8 45th St E/Ft Tejon Rd	< 50	62	125	63.6
Pearblossom Hwy				
Sierra Hwy				
/Barrel Springs Rd	152	315	673	73.4
Barrel Springs Rd				
/40th St E	156	323	690	73.6
40th St E/47th St E	145	299	638	73.1
47th St E/Ave T	117	235	498	71.5
Ave T Pearblossom Hwy				
/90th St E	100	203	432	71.1
90th St E/120th St E	67	126	263	67.9

TABLE N-6
(Continued)

<u>Roadway From/To</u>	<u>Distance from Roadway Centerline to CNEL (in feet)^a</u>			<u>CNEL 50 feet from Centerline of the Near Travel Lane</u>
	<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
Barrel Springs Rd				
Tierra Subida Ave				
/Sierra Hwy	< 50	106	218	66.6
Sierra Hwy				
/W of 25th St E	73	140	294	68.6
W of 25th St E				
/25th St E	73	140	294	68.6
25th St E				
/Pearblossom Hwy	98	199	424	71.0
Pearblossom Hwy				
/40th St E	74	145	304	68.8
40th St E/Chesboro Rd	< 50	< 50	110	61.8
Old Herald Rd				
25th st E				
/Barrel Springs Rd	< 50	87	182	66.2
State Route 138 (SR-138)				
Ave T/90th St E	109	225	480	71.8
90th St E/120th St E	< 50	< 50	98	61.0
<u>North/South Arterials</u>				
70th St West				
Ave M/Ave M-8	< 50	108	229	67.7
Ave M-8/Ave N	60	120	255	68.4
65th St West				
Ave M/Ave N	< 50	< 50	< 50	55.4
60th St West				
Ave M/Ave N	< 50	104	220	67.4
Godde Hill Rd				
60th St W				
/Elizabeth Lake Rd	65	132	279	69.0
55th St West				
Ave M-8/Ave N	< 50	< 50	76	60.2

Noise

TABLE N-6

(Continued)

<u>Roadway From/To</u>	<u>Distance from Roadway Centerline to CNEL (in feet)^a</u>			<u>CNEL 50 feet from Centerline of the Near Travel Lane</u>
	<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
50th St West				
Ave L/Ave M	< 50	104	220	67.4
Ave M/Ave N	63	128	271	68.8
45th St West				
Ave N/Ave O	< 50	96	201	66.8
Ranch Center Dr				
Elizabeth Lake Rd /Ritter Ranch Rd	< 50	58	116	63.2
30th St West				
Ave M/Ave N	86	171	362	70.0
Ave N/Ave P	71	136	284	68.4
Ave P/Ave P-8	< 50	101	206	66.2
25th St West				
Ave O/Ave P	< 50	63	128	63.8
Ave P/Ave P-8	< 50	100	211	67.1
Ave P-8 /Elizabeth Lake Rd	86	171	362	70.0
20th St West				
Ave M/Ave N	56	112	238	67.9
Ave N/Ave P	< 50	108	228	67.7
Ave P/Elizabeth Lake Rd	60	120	255	68.4
15th St West				
Ave M/Ave N	61	124	263	68.6
Ave N/Ave P	< 50	87	182	66.2
Ave O-8/Ave P-8	< 50	73	151	64.9
10th St West				
Ave M/Ave N	145	299	638	73.1
Ave N/Ave P	158	327	698	73.7
Ave P/Palmdale Blvd	140	287	611	72.8
Tierra Subida Ave				
Palmdale Blvd/Ave R	82	163	343	69.6
Ave R/Ave S	108	222	473	71.7
Ave S/Barrel Springs Rd	< 50	83	172	65.8
5th St West				
Ave P-8/Palmdale Blvd	131	275	587	73.1
Palmdale Blvd /Tierra Subida Ave	63	128	271	68.8

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TABLE N-6

(Continued)

Roadway From/To	Distance from Roadway Centerline to CNEL (in feet) ^a			CNEL 50 feet from Centerline of the Near Travel Lane
	70 CNEL	65 CNEL	60 CNEL	
Division St				
Ave M/Ave O	113	233	497	72.0
Ave O/Ave P	91	183	389	70.4
Ave P/1500' N of Ave Q	103	210	449	71.4
1500' N of Ave Q/Ave R	101	207	441	71.3
Ave R/Ave R-8	65	121	252	67.6
5th St East				
Ave Q/Palmdale Blvd	< 50	< 50	104	62.4
Palmdale Blvd/Ave R-8	< 50	63	128	63.8
Ave R-8/Ave S	< 50	58	116	63.2
6th St East				
Sierra Hwy /Palmdale Blvd	< 50	58	116	63.2
Palmdale Blvd/Ave R	< 50	58	116	63.2
Sierra Hwy				
Ave M/Ave P	152	315	673	73.4
Ave P/Ave Q	119	247	528	72.4
Ave Q/Palmdale Blvd	84	167	353	69.8
Palmdale Blvd/Ave R-8	84	167	353	69.8
Ave R-8/Ave S	82	163	343	69.6
Ave S/1200' S of Ave S	82	163	343	69.6
1200' S of Ave S /3000' N of Barrel Springs Rd	82	163	343	69.6
3000' N of Barrel Springs Rd /Pearblossom Hwy	82	163	343	69.6
Pearblossom Hwy/SR-14	173	361	772	74.3
10th St East				
Ave L/Ave M	94	191	407	70.7
Ave O-8/Ave P	100	203	432	71.1
Ave P/Palmdale Blvd	110	226	481	71.8
Palmdale Blvd/Ave R-8	60	120	255	68.4
Ave R-8/Ave S	61	124	263	68.6
15th St East				
Ave L/Ave L-8	< 50	78	162	65.4
Ave L-8/Ave M	< 50	77	160	65.3
Ave P/Palmdale Blvd	< 50	96	201	66.8
Palmdale Blvd/Ave R	< 50	73	151	64.9

TABLE N-6
(Continued)

<u>Roadway From/To</u>	<u>Distance from Roadway Centerline to CNEL (in feet)^a</u>			<u>CNEL 50 feet from Centerline of the Near Travel Lane</u>
	<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
20th St East				
Ave L/Ave M	73	140	294	68.6
Ave P/Palmdale Blvd	< 50	96	201	66.8
Palmdale Blvd/Ave S	63	128	271	68.8
25th St East				
Ave L/Ave M	< 50	< 50	90	61.4
Ave P/Palmdale Blvd	94	191	407	70.7
Palmdale Blvd/Ave R-8	91	183	389	70.4
Ave R-8/Ave S	93	187	398	70.6
Ave S/4200' S of Ave S	131	275	587	73.1
4200' S of Ave S /Barrel Springs Rd	93	187	398	70.6
30th St East				
Ave L/Ave M	67	126	263	67.9
Ave P/Ave Q	80	158	334	69.4
Ave Q/Palmdale Blvd	93	187	398	70.6
Palmdale Blvd /1300' S of				
Palmdale Blvd	84	167	353	70.0
1300' S of	--			
Palmdale Blvd/Ave R	84	167	353	70.0
Ave R/1000' S of Ave R	89	179	380	70.3
1000' S of Ave R				
/600' N of Ave R-8	89	179	380	70.3
600' N of Ave R-8				
/Ave R-8	89	179	380	70.3
Ave R-8/Ave S	< 50	84	168	64.8
Ave S/1600' S of Ave S	--	--	--	---
35th St East				
Ave L/Ave M	< 50	< 50	104	62.4
Ave P/Ave Q	< 50	58	116	63.2
Ave Q/Palmdale Blvd	65	132	279	69.0
Palmdale Blvd /1200' N of Ave R	65	132	279	69.0
1200' N Ave R/Ave R	66	132	279	69.0
Ave R/Ave S	< 50	73	151	64.9
Ave S/1600' S of Ave S	< 50	78	162	65.4

TABLE N-6

(Continued)

Roadway From/To	Distance from Roadway Centerline to CNEL (in feet) ^a			CNEL 50 feet from Centerline of the Near Travel Lane
	70 CNEL	65 CNEL	60 CNEL	
40th St East				
Ave L/Ave M	< 50	100	211	67.1
Ave N/Ave P	< 50	109	229	67.7
Ave P/Palmdale Blvd	96	195	415	70.9
Palmdale Blvd/Ave S	91	183	389	70.4
Ave S/Pearblossom Hwy	103	211	449	71.4
Pearblossom Hwy /Barrel Springs Rd	< 50	108	229	67.7
45th St East				
Ave L/Ave M	< 50	< 50	90	61.4
47th St East				
Palmdale Blvd/Ave S	149	307	655	73.3
Ave S/Fort Tejon Rd	121	244	518	71.7
Fort Tejon Rd /Pearblossom Hwy	78	154	324	69.2
Pearblossom Hwy /Barrel Springs Rd	< 50	< 50	60	58.4
Fort Tejon Rd				
47th St E /Pearblossom Hwy	75	133	271	67.4
50th St East				
Ave L/Ave M	163	338	723	73.9
Ave M/Ave P	180	376	804	74.6
Ave P/Crosstown Fwy	156	323	690	73.6
Crosstown Fwy /Palmdale Blvd	168	350	748	74.1
55th St East				
Ave O/Ave S	< 50	87	182	66.2
60th St East				
Ave L/Ave N	< 50	111	230	67.0
Ave O/Ave R	114	237	505	72.2
Ave R/Ave S	80	158	334	69.4
60th St East				
Ave S/Ave T	67	126	263	67.9
Ave T/Mt Emma Rd	< 50	< 50	90	61.4

Noise

TABLE N-6

(Continued)

<u>Roadway From/To</u>	<u>Distance from Roadway Centerline to CNEL (in feet)^a</u>			<u>CNEL 50 feet from Centerline of the Near Travel Lane</u>
	<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
70th St East				
Ave L/Ave N	< 50	83	172	65.8
Ave P-8/Ave R	< 50	100	211	67.1
Ave R/Ave S-8	60	120	255	68.4
80th St East				
Ave L/Ave N	< 50	87	182	66.2
90th St East				
Ave L/Ave N	94	191	407	70.7
Ave N/Palmdale Blvd	113	233	497	72.0
Palmdale Blvd/Ave S	94	191	407	70.7
Ave S/Ave T	< 50	104	220	67.4
Ave T/SR-138	< 50	< 50	104	62.4
SR-138/Fort Tejon Rd	< 50	< 50	< 50	55.4
110th St East				
Ave L/Ave N	< 50	63	128	63.8
Ave N/Ave P	< 50	96	201	66.8
Ave P/Ave S	< 50	92	192	66.5
Ave S/SR-138	< 50	< 50	76	60.2
SR-138/Fort Tejon Rd	< 50	< 50	60	58.4
State Route 14 (SR-14)				
Ave L/Ave N	355	756	1625	78.7
Ave N/Ave P	379	809	1738	79.1
Ave P/Palmdale Blvd	391	834	1793	79.3
Palmdale Blvd/Ave S	272	578	1241	77.4
Ave S				
/L. A. Forest Hwy	260	551	1184	77.1
L. A. Forest Hwy				
/Crown Valley Rd	319	682	1466	78.5
Bypass Fwy				
Ave L/Ave M	222	472	1015	76.7
Ave M/Ave O	235	501	1077	77.1
Ave O/Palmdale Blvd	157	331	710	74.4
Crosstown Fwy				
SR-14/10th St E	233	496	1066	77.0
10th St E/25th St E	235	501	1077	77.1
25th St E/40th St E	228	487	1046	76.9
40th St E/50th St E	241	515	1107	77.3
50th St E/Bypass Fwy	157	331	710	74.4

TABLE N-6
(Continued)

<u>Roadway From/To</u>	<u>Distance from Roadway Centerline to CNEL (in feet)^a</u>			<u>CNEL 50 feet from Centerline of the Near Travel Lane</u>
	<u>70 CNEL</u>	<u>65 CNEL</u>	<u>60 CNEL</u>	
Airport Fwy				
Crosstown Fwy/70th St E	280	381	818	75.3
70th St E/Bypass Fwy	160	337	723	74.5

Source: Michael Brandman Associates, 1992.

Noise

TABLE N-7

NOISE IMPACTS BY SOURCE

U.S. Air Force Plant 42	CNEL noise contours extend substantial distances into the community. The 70 dBA CNEL extends beyond SR-14 on the west.
Antelope Valley Freeway	CNEL noise levels are significant and the 60 dBA CNEL demonstrates that freeway noise extends a substantial distance off the right-of-way.
Sierra Highway/Southern Pacific Railroad Line	These transportation noise sources have overlapping noise contours resulting in substantial noise impacts. Major rail freight movements result in single events of long duration.
Pearblossom Highway	The 60 and 65 dBA CNEL contours extend substantial distances into the community.
Major Roadways	Noise-sensitive land uses along major roadways are impacted by traffic noise.
Commercial/Industrial	In general, commercial/industrial operations and activities are not considered a City-wide noise problem. Isolated noise problems occur where commercial/industrial uses are located near a noise-sensitive land use. Sand and gravel operations are presently far removed from noise sensitive land uses. However, sensitive residential uses are being developed closer to those operations and traffic along Avenue T will impact more residential uses as development spreads outward from the existing developed areas.
Construction	Construction noise can be annoying to adjacent noise-sensitive land uses.

TABLE N-8

EFFECTS OF NOISE ON PEOPLE (RESIDENTIAL LAND USES)

<u>Effects^a</u>	<u>dBA CNEL</u>	
	<u>60</u>	<u>65</u>
Hearing Loss	Will not occur	Will not occur
Speech Interference		
Outdoor (distance for 95% sentence intelligibility)	2.0 meters (6.6 ft.)	1.5 meters (4.9 ft.)
Indoor (sentence intelligibility)	100%	100%
Highly Annoyed ^b	9%	15%
Average Community Recreation ^c	Moderate	Significant
General Community Attitude Towards Area	No more important than various other environmental factors	Adverse aspect on the community environment

^a "Speech Interference" data are drawn from the following tables in EPA's "Levels Document": Table 3, Fig. D-1, Fig. D-2, Fig. D-3. All other data from National Academy of Science 1977 report "Guidelines for Preparing Environmental Impact Statements on Noise, Report of Working Group 69 on Evaluation of Environmental Impact of Noise."

^b Depends on attitudes and other factors. An unknown small percentage of people will report being "highly annoyed" even in the quietest surroundings. One reason is the difficulty all people have in integrating annoyance over a very long time.

^c Attitudes or other non-acoustic factors can modify this. Noise at low levels can still be an important problem, particularly when it intrudes into a quiet environment.

Note: Research implicates noise as a factor producing stress-related health effects such as heart disease, high-blood pressure and stroke, and ulcers and other digestive disorders. The relationships between noise and these effects, however, have not as yet been quantified.

Source: U. S. Department of Transportation, Federal Interagency Committee on Urban Noise, Guidelines for Considering Noise in Land Use Planning Control, page D-2, June 1980.



H o u s i n g E l e m e n t

SECTION 1: INTRODUCTION

A. Purpose of the Housing Element

This update of the City of Palmdale Housing Element of the General Plan has been prepared pursuant to California Government Code Article 10.6, Sections 65580 through 65589.8. Each city and county in the state is required, as part of its general plan, to prepare a housing element consisting of "an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives and scheduled programs for the preservation, improvement and development of housing." The purpose of this document is to comply with these requirements and to provide the City of Palmdale with an assessment of its housing needs and a set of quantified objectives and programs to address those needs. In addition, according to Section 65588, each local government shall periodically review its Housing Element to evaluate the appropriateness of the housing goals and objectives; evaluate the effectiveness of the housing element in attainment of the community's housing goals and objectives; check the progress of the City in implementation of the element; and revise the element as appropriate.

B. Scope of the Housing Element

The Housing Element contains an analysis of current and projected population, employment and housing characteristics of the City. The needs of six special needs groups in the population, the elderly, single-parent households, large families, the handicapped, the homeless and farm workers are also examined. Additionally, housing prices in the City are compared to residents' incomes in order to create an index of housing affordability. This analysis is used to determine the community's housing needs, which in turn form the basis of a set of goals, objectives, policies and programs developed to address the identified housing needs.

C. Development of the Housing Element and Public Participation

The Housing Element was originally prepared in 1992, by the consulting firm of Karin Pally Associates under the direction of City Planning and Redevelopment staff. The Draft Element was the subject of a workshop held by the Planning Commission on June 9, 1992, to which the general public was invited through posting of public notice in

Housing

the newspaper. A public hearing on the Draft Element before the Planning Commission was held on June 25, 1992, at which time public comment on the Element was sought. The Element was reviewed by the City Council at public hearings held between November 19, 1992, and January 25, 1993, and was adopted as part of the City's General Plan Update on January 25, 1993. The Element was later approved by the State Department of Housing and Community Development (HCD). In accordance with Section 65588 of the Government Code, portions of the element were revised in 1995. This update, referenced as General Plan Amendment 94-6, was approved by the Planning Commission on December 15, 1994 and by the City Council on February 8, 1995. Another update of the Housing Element, referred to as General Plan Amendment 96-3, occurred in mid-1996. Public hearings on the draft Housing Element update were held before the Planning Commission on June 6, 1996. The Element was also reviewed and adopted by the City Council on July 10, 1996.

D. Consistency with Other General Plan Elements

This Housing Element update has been prepared to be consistent with other elements of the General Plan as required by State law. Principally, residential land uses as shown on the General Plan Land Use Map are the basis for identification of adequate residential sites in the Housing Element. Additionally, the Circulation Element provides for development of adequate transportation systems for future housing development; the Noise Element contains policies to protect areas designated for housing use from inappropriate noise levels; the Open Space Element in combination with the Land Use Map designates open and recreational space for the community's growing population; the Safety and Environmental Resources Elements address environmental issues in the City to protect all residents from natural hazards and ensure preservation of natural resources for the common good; the Community Design Element establishes policies to shape the overall form and appearance of the City and to improve the functional and aesthetic quality of the built environment for City residents and businesses; and the Parks, Recreation and Trails Element serves as a guide to future development of parks, recreational facilities, multi-use trails, bikeways and open space areas to serve the recreational needs of existing and future City residents.

E. Organization of the Element

The following sections contain the City's goals and programs to meet its present and projected housing needs over the next five year planning period (1995-1999). Section 2 lists the City's goals, objectives and policies for housing, as well as specific programs to meet each housing objective. Sections 3 through 8 provide background information on current conditions and anticipated needs with respect to population, employment, housing, special need groups, adequate sites and services, constraints to housing development, and energy conservation. Section 9 identifies subsidized housing units, and outlines programs for presentation or replacement of these units. Section 10 contains an evaluation of accomplishments pursuant to the last Housing Element Update in 1988

SECTION 2: GOALS, OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

GOAL H1: Promote the construction of new housing affordable to all income groups.

Objective H1.1: Provide sites at a range of densities adequate to accommodate future housing needs.

Policy H1.1.1: Encourage a variety of housing types such as single family attached (townhouses), multi-family units, planned unit developments and other housing types that make housing more affordable.

Policy H1.1.2: Encourage the development of new affordable units through the provision of incentives.

Policy H1.1.3: Ensure that all necessary support services can be provided to new developments.

Program H1.A: New Housing Development

Based on the Regional Housing Needs Assessment prepared by SCAG in 1988, the previous objective in construction for new units was the production of 10,338 new housing units between 1989 and 1994. The new objective is to make provisions for the production of an additional 10,000 new units for the 1995-1999 planning period.

Quantified Objective: 10,388 new housing units were to be constructed between 1989-1994. A total of 14,199 units were constructed within this timeframe; 11,323 units were constructed between 1989-1992 and 2,876 units were constructed between 1993-1994. By the end of 1994, the quantified objective had been surpassed by 3,811 units.

Responsible Agency: Planning Commission and City Council.

Housing

Implementation Actions:

Target Date

Adopt Land Use Element.

January 1993*

Adopt Interim Zoning Consistency Map.

December 1994*

Draft Development Code.

Completed*

Adopt Development Code.

December 1994*

Meet the quantified objective unit
production between 1995-1999

On-going

Program H1.B: Density Bonus Ordinance

In accordance with state law, adopt a density bonus program that includes developer incentives as required by California Government Code 65915. Provide a 25% density bonus for housing developers who make 10% of their units affordable to households earning 50% of median income or 20% of units affordable to households earning 60% of median income, or 50% of their units to qualifying senior residents. Provide additional density bonuses for housing projects which exceed these levels, to be specified in a density bonus ordinance.

Responsible Agency: Planning Department

Implementation Actions:

Target Date

Draft ordinance and submit to
City Council.

December 1994*

Draft regulations

December 1994*

Implement Ordinance

On-going

Program H1.C: Second Unit Ordinance

Develop a second unit ordinance to establish local criteria for the approval of second units constructed pursuant to California Government Code Section 65852.1-65852.2.

Responsible Agency: Planning Department

Housing

Implementation Actions:

Target Date

Develop an ordinance and submit
for approval.

December 1994*

Implement ordinance

On-going

Program H1.D: Alternate Housing Types Ordinance

Under this existing program, the City permits the development of mobile home subdivisions in appropriate areas per Ordinance No. 422. This allows the placement of mobile homes on single-family lots. Ordinance No. 414 provides for the development of subdivisions comprised of manufactured housing or mobile homes. These housing forms are permitted in all residential zoning designations in the City.

Responsible Agency: Planning Department

Implementation Actions: Continue an on-going program.

Program H1.E: Minimum Residential Standards Ordinance

The City will adopt an ordinance to establish minimum standards for residential structures to ensure that a standard for liveability is maintained.

Responsible Agency: Planning Department

Implementation Actions:

Target Date

Develop and adopt an Ordinance.

December 1994*

Implement Ordinance

On-going

Objective H1.2: Increase the supply of ownership housing affordable to households with very low, low and moderate income.

Policy H1.2.1: Assist first-time home buyers.

Housing

Policy H1.2.2: Adopt programs to ensure purchase of existing and new housing units affordable to low and very low income households.

Program H1.F: Inclusionary Housing

Develop an inclusionary housing program to incorporate affordable housing into the development process. For example, in a housing partnership, developers of large housing tracts would trade affordable housing units for their entitlements to build a market rate for-sale housing project. Under such a program, the developer could be given such options as: build affordable housing in the market rate development, build affordable units on another site, or pay a fee. Developers who wanted to build more than 15% affordable units could apply to the City for assistance.

Responsible Agency: Redevelopment and Planning

Implementation Actions:

Target Date

Convene a committee of developers and City staff.

January 1999

Draft an inclusionary policy.

January 1999

Draft an ordinance and submit to City Council.

March 1999

Draft regulations and begin program implementation.

September 1999

Program H1.G: First-time Homebuyer Program

Assess the feasibility of developing a program to assist first-time home buyers with deferred payment secondary finance. Such loans, often called "soft seconds," could be made at low interest rates with payment deferred until title changes hand or units are sold. Such a program may include shared appreciation mortgages (SAM). Upon sale of the assisted home, deposit the City's share of the profits from the SAM in the housing trust fund.

Responsible Agency: Redevelopment Agency

Housing

<u>Implementation Actions:</u>	<u>Target Date</u>
Assess feasibility and submit recommendations.	February 1994*
Develop program guidelines and recommended funding.	August 1995*
Implement program	On-going

Program H1.H: Single Family Mortgage Revenue Bond Program

Issue tax-free mortgage revenue bonds to provide low interest loans for first-time home buyers. Mortgage revenue bonds reduce the mortgage interest rates for residential loans. Bond programs also reduce the amount of income a purchaser must earn to qualify for a loan. Mortgage revenue bonds are issued by the Redevelopment Agency.

<u>Quantified Objective:</u>	<u>Target Date</u>
\$50 million in bonds to provide 500 loans at below market interest rates to moderate income households.	On-going

Responsible Agency: Redevelopment Agency

Implementation Actions. Continue an on-going program (depends on extension of federal authority for private activity bonds.)

Objective H1.3: Increase the supply of rental housing affordable to households with very low, low and moderate income.

Policy H1.3.1: Support programs and City actions including purchase of affordable housing covenants, that increase the number of rental housing units available for working households of modest income, young families, senior citizens and households with special needs.

Housing

Policy H1.3.2: Require that all units developed under any of the City's affordable housing programs remain affordable for the longest possible time or at least 35 years.

Program H1.I: Affordable Housing Land Bank

Using redevelopment monies and other available housing funds, acquire land to be used to build new affordable single and multi-family housing units for Palmdale residents. Land could be used to develop either rental or ownership housing. (See also Program H1.L, Replacement Housing Land Bank)

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Identify parcels of land appropriate for affordable housing and purchase them for future development.

On-going

Program H1.J: Predevelopment Loan Program

Develop a fund to provide predevelopment loans to nonprofit agencies and resident associations to pay for financial consulting, fees, permits, inspections and other expenses incurred in nonprofit acquisition, rehabilitation or construction of affordable housing.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Develop program guidelines and recommended budget.

November 1997

Begin program.

January 1998

Program H1.K: Rental Housing Construction/Rehabilitation Program

Provide assistance to developers to construct affordable rental housing developments in the City to serve low income families and seniors and households with special needs. (See also Goal E, Special Needs Housing)

Responsible Agency: Redevelopment Agency

<u>Implementation Actions:</u>	<u>Target Date</u>
Develop program guidelines and recommended budget.	On-going
Begin program.	On-going

Objective H1.4: Maintain the supply of housing affordable to low and very low income persons.

Policy H1.4.1: Replace affordable housing units demolished through City action within Community Redevelopment Agency project areas with units of equivalent price and size.

Policy H1.4.2: In Redevelopment Project Areas, require private developers to replace demolished affordable housing units with units of equivalent price and size.

Program H1.L: Replacement Housing Land Bank

Using funds from the Low and Moderate Income Housing Set Aside of the Palmdale Redevelopment Agency, acquire land to be used to construct affordable housing to replace units demolished for publicly financed projects. (See Affordable Housing Land Bank under Program H1.I)

Responsible Agency: Redevelopment Agency

Housing

Implementation Actions:

Target Date

Acquire property as needed

On-going

Program H1.M: Replacement Housing Construction Program

Develop a program to finance the construction of new single and multi- family rental and ownership units to replace rental units demolished by public action. The replacement units shall be equivalent in price and unit size to the demolished units.

Quantified Objective: 1995-1999, Finance an equivalent number of units as the number removed by the Redevelopment Agency.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Develop program guidelines and budget recommendations as units are removed and submitted for approval.

On-going

Program H1.N: Condominium Conversion Standards Ordinance

Adopt an ordinance to create standards and criteria for conversion of multi- family rental units to condominiums.

Responsible Agency: Planning Department

Implementation Actions:

Target Date

Implement guidelines as set forth in the Subdivision Ordinance.

On-going

Objective H1.5: Reduce government constraints on the production of housing.

Policy H1.5.1: When practical and prudent, consider flexible development and building standards to reduce the cost of construction.

Policy H1.5.2: Continue to expedite processing for all housing.

Program H1.O: Permit Streamlining Program

Continue existing programs to expedite permit processing.

Responsible Agency: Planning, and Building and Safety Departments.

Implementation Action:

Target Date

Continue an existing program.

On-going

Program H1.P: Housing Impact Review

Review housing impacts of proposed City policies, programs and actions and prepare an assessment letter when adverse impacts are identified. Housing impact assessments to be required for zone changes, development fees, assessments and amendments to the General Plan. Housing impact assessments will evaluate the effects of proposed actions on the provision and preservation of housing for low and moderate income households. The assessments will propose measures that would mitigate the identified housing impacts.

Responsible Agency: Planning Department

Implementation Actions:

Target Date

Consider impacts to housing opportunities through the CEQA process for each Zone Change, GPA, or Zoning Ordinance Amendment.

On-going

Housing

GOAL H2: Preserve and improve the existing supply of affordable housing.

Objective H2.1: Bring existing housing units up to an established standard of habitability.

Policy H2.1.1: Develop a standard of habitability for the City's housing stock.

Policy H2.1.2: Develop and operate programs to provide rehabilitation assistance to homeowners and to owners of multi-family rental housing if those owners agree to maintain the affordability of those units.

Policy H2.1.3: Maintain the affordability of leased mobile home spaces for seniors and low income families. (See also Goal E, Special Needs Housing)

Policy H2.1.4: Require that all units developed under any of the City's affordable housing programs remain affordable for the longest possible time or at least 35 years.

Policy H2.1.5: Actively enforce compliance with health, safety, building, fire, law enforcement and other regulations in all neighborhoods.

Program H2.A: Habitability Standard

Adopt an ordinance establishing a standard of habitability for application to existing mobile home parks and multi-family and single-family housing units.

Responsible Agency: Planning, and Building and Safety Departments.

Implementation Action:

Target Date

Adopt a Residential Standards
Ordinance.
Implement Ordinance

On-going

Program H2.B: Handiworker Program

Develop a handiworker program that will provide grant-funded housing repairs for eligible elderly and very low income households in single family dwelling units.

Quantified Objective: Provide repairs and weatherization services to 25 eligible households 1996-1997

Responsible Agency: Redevelopment Agency

<u>Implementation Actions:</u>	<u>Target Date</u>
Review and revise program designed by staff.	1993*
Submit program and budget appropriation to Council for approval.	Annually
Continue program operation.	On-going

Program H2.C: Los Angeles County Community Development Commission Rental Rehabilitation Program

Provide low-interest rehabilitation loans to owners of multi-family rental housing to improve and eliminate code related deficiencies. Participating owners may raise rents to make loan payments.

Quantified Objective: 100 units 1995-1999

Responsible Agency: Community Development Commission

<u>Implementation Action:</u>	<u>Target Date</u>
Submit program/budget	
Conduct an assessment and submit recommendations.	Annually
Continue Program	On-going

Housing

Program H2.D: Multi-Family and Rental Unit Rehabilitation Program

Develop a rehabilitation loan program for single and multi-family rental buildings. This program will require owners to agree to rent to eligible low income households and to maintain the affordability of the assisted units for a period of between 15 and 30 years in exchange for a low interest rate loan.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Develop program guidelines and submit for budget approval.

On-going

Begin program implementation.

On-going

Program H2.E: Housing Conservation Program:

This program will assist owners of single family homes and mobile homes who occupy their property. Homes must be minimum of 15 years old. To qualify for this program, the owner's income may not exceed 80% of the area median income adjusted for family size. Loans are a maximum of \$25,000 and a minimum of \$5,000. Interest is accrued at 3% simple interest with a 15 year pay-off term.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Begin Program Implementation

January 1997

Program H2.F: Emergency Repair Program:

This program will assist owners of single family homes and mobile homes who live in their property and need a one time grant to fund emergency repair loan or grant. To qualify for this program, the owner's income may not exceed 50% of the area median income adjusted for family size. Maximum grant amount is \$3,000.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Begin Program Implementation

January 1997

Program H2.G: Mobile Home Space Rent Control

Based on an identified need to maintain affordability of mobile home lease costs, this ordinance, adopted in August 1990 imposes restrictions on increases in lease costs for mobile home park spaces.

Responsible Agency: Mobile Home Park Rental Review Board

Implementation Actions: Continue to implement an existing program.

Program H2.H: Enforcement of Mobile Home Park Lease Terms Ordinance

This ordinance, adopted on May 14, 1992, amends the City's mobile home space rent control ordinance to prevent owners from circumventing rent control by refusing to offer new tenants a lease term of 12 months or less. Under existing state law, longer leases are exempt from rent control. The ordinance currently states that no owner may require any resident or prospective resident to sign a lease or rental agreement that exempts the space from local rent control.

Responsible Agency: City Council

Implementation Actions:

Target Date

Develop complaint procedures
and enforcement mechanisms.

On-going

Program H2.I: Mobile Home Park Homeownership and Rehabilitation

Develop a program to assist residents of mobile home parks occupied chiefly by low income families and seniors to purchase their parks and own them cooperatively.

Housing

Provide grant funding to rehabilitate park spaces, hook-ups and grounds to meet City Habitability Standards for mobile home parks. Provide City funds for predevelopment expenses and utilize the state's Mobile Home Park Resident Ownership Program as appropriate.

Quantified Objective: Survey 1,000 spaces/provide assistance to tenants of one park.

Responsible Agency: Redevelopment Agency

<u>Implementation Actions:</u>	<u>Target Date</u>
Complete survey of four parks	August 1996
Develop guidelines and budget for recommended program.	December 1996

Program H2.J: Mobile Home Park Task Force

Convene a task force with representatives from the City, mobile home park owners, tenants of mobile home parks and lenders. The purpose of this task force will be to facilitate negotiations between park tenants and owners on a variety of issues.

Responsible Agency: Redevelopment Agency

<u>Implementation Actions:</u>	<u>Target Date</u>
Convene task force and initiate deliberations.	Completed*

Program H2.K: Comprehensive Neighborhood Improvement Program

Develop a comprehensive program to improve neighborhood quality by enforcing compliance with building, safety, health, fire, law enforcement and other regulations in rental and ownership housing. This program could utilize a coordinated team of officials from the City, Sheriff's Department, Health Department, Fire Department and other agencies. The team would cite building owners for deficiencies and seek enforcement of all application regulations.

Responsible Agency: Housing Section

Implementation Actions:

Target Date

Design and implement a Neighborhood Improvement Strategy and continue to utilize the PAC Program.

January 1997

Objective H2.2: Preserve existing units currently assisted by the federal, state or local government.

Policy H2.2.1: Provide information and financial assistance to tenants of at-risk units to ensure preservation.

Policy H2.2.2: Preserve or replace all units with expiring subsidies.

Policy H2.2.3: Prevent or minimize displacement of low-income tenants in any at-risk properties.

Program H2.L: Tenant Assistance Program

Develop a program to provide information and assistance to residents in federally assisted units with expiring subsidies. Work closely with resident associations to facilitate preservation of at-risk units.

Quantified Objective: Preserve 122 units of Section 236(J)(1) housing and 383 units of Section 221(D)(4) at risk in the period 1995-1999 through either continued operation by current owner or purchase by tenants or another nonprofit organization.

Responsible Agency: Redevelopment Agency

Housing

Implementation Actions:

Target Date

Develop a tenant information program.

January 1997

Publish a City phone number where tenants can call for information.

January 1997

Place a copy of the Preservation Amendment and other preservation documents in the Public Library.

January 1993*

Develop a grant program for tenant assistance.

June 1997

Program H2.M: Mortgage Revenue Bond Refinance Program

In rental housing financed with locally issued mortgage revenue bonds, develop standards and implement a program to refinance projects when rent restrictions expire, in order to preserve the City's supply of affordable housing. Conditions assessed in considering a refinance should be the number of low income households occupying the restricted units, and the willingness of the owner to make units affordable to households at 50% of median, annually certify income eligibility and extend affordability for 15 years.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Develop refinance guidelines.

1993*

Implement guidelines.

On-going

GOAL H3: Increase the capacity of the City to develop and implement housing programs.

Objective H3.1: Administer adequate housing programs to meet the needs of all Palmdale residents.

Policy H3.1.1: Expand the responsibilities, authority, and activities of the City's Housing Section to match the growth of the city.

Policy H3.1.2: Support development of new entities capable of developing and operating permanently affordable housing.

Program H3.A: Housing Needs Assessment

Conduct a housing needs assessment to determine the need for all types of housing assistance in the city.

Responsible Agency: Redevelopment Agency

<u>Implementation Actions:</u>	<u>Target Date</u>
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Conduct a needs assessment in the course of preparing a Comprehensive Housing Affordability Strategy (Note: Updated Consolidated Plan in 1995)	1993*
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Program H3.B: As an entitlement City, implement the Community Development Block Grant Program

Responsible Agency: Redevelopment Agency

<u>Implementation Action:</u>	<u>Target Date</u>
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Prepare and submit application for designation as an entitlement community.	Completed/on-going*
Program implementation	On-going - budget adopted annually

Program H3.C: Mortgage Revenue Bonds

The mortgage revenue bond program provides project financing to rental housing at below market interest rates. Developers must agree to make 20% of the units available at rates affordable to very low income households for the duration of the bond financing, usually between ten and 15 years.

Responsible Agency: Redevelopment Agency

Housing

Implementation Actions:

Target Date

Develop refinance guidelines.
Implementation

Completed*
On-going

GOAL H4: Promote equal housing for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, age or physical condition.

Objective H4.1: Promote fair housing practices and prohibit discrimination.

Policy H4.1.1: Ensure compliance with fair housing laws by adopting development guidelines that encourage the development of mixed income housing in every zone district and in every area of the community.

Policy H4.1.2: Actively promote fair housing practices through public information.

Policy H4.1.3: Prohibit discrimination in housing.

Program H4.A: Fair Housing Public Information Program

Cooperate with the Fair Housing Council of San Fernando Valley to develop a public information program on fair housing law.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Contract for Fair Housing Services
with the Fair Housing Council of San
Fernando Valley

On-going

Program H4.B: Fair Housing Affirmative Marketing Practices

Cooperate with the designated Fair Housing Council to ensure that developers of new housing, realtors and managers of rental housing comply with affirmative marketing practices.

Responsible Agency: Redevelopment Agency and City Attorney

Implementation Actions: Cooperate in an existing program.

GOAL H5: Adequately house households with special needs.

Objective H5.1: Expand the housing supply which is affordable for senior citizens.

Policy H5.1.1: Permit a variety of housing types for seniors including dependent housing units and congregate housing with services.

Policy H5.1.2: Support independent living for the elderly and disabled.

Policy H5.1.3: Establish and maintain design standards for units designated as senior units to ensure that these units are accessible and convenient for older persons.

Policy H5.1.4: Assess the on-going needs for senior housing.

Policy H5.1.5: Encourage creation of senior housing with convenient access to medical, commercial, recreational, cultural, civic and senior services, by establishing a Senior Housing Target Area in proximity to the Senior Center in downtown Palmdale, and providing financial incentives for development of senior housing units in this Target Area.

Program H5.A: Senior Housing Program

This program will actively facilitate the development of new or rehabilitated affordable rental and/or ownership units for seniors through provision of a variety of incentives

Housing

that could include a predevelopment loan, expedited processing and land write-downs for a senior project located in the Target Area.

Quantified Objective: 109 units in current planning period.
"Impressions" senior re-hab project

Responsible Agency: Housing Section

<u>Implementation Actions:</u>	<u>Target Date</u>
Implement program guidelines and identify appropriate sites, incentives and subsidies.	On-going

Program H5.B: Senior Housing Design Review Program

Develop a review process to ensure that units designated as senior units are accessible and meet established design guidelines for such units.

Responsible Agency: Planning Department

<u>Implementation Actions:</u>	<u>Target Date</u>
Develop guidelines and a review procedure.	December 1994*
Implement ordinance/General Plan policies	On-going

Program H5.C: Senior Housing Market Survey

Cooperate with developers, community agencies or other organizations to assess the need for senior housing in Palmdale.

Responsible Agency: Redevelopment Agency

Housing

Implementation Action:

Target Date

Cooperate with entities conducting market studies as necessary and appropriate.

On-going

Program H5.D: Develop a dependent housing unit ordinance

Under California Government Code 65852.1, develop a dependent unit ordinance to meet the needs of the City's families.

Responsible Agency: Planning Department

Implementation Actions:

Target Date

Develop an ordinance and submit for approval.

December 1994*

Implement ordinance

On-going

Objective H5.2: Address the problems of homeless persons.

Policy H5.2.1: Designate sites or land use categories where the development of shelters for the homeless is permitted.

Policy H5.2.2: Conduct a study to determine the number of homeless persons in the City.

Policy H5.2.3: Assess the service and shelter needs of homeless individuals and families in the City.

Policy H5.2.4: Develop a policy on homeless shelter and services to meet the needs of homeless families and individuals in the City.

Housing

Program H5.E: Homeless Persons Facilities Designation

In compliance with state housing law, permit the development of emergency shelters and transitional housing facilities for the homeless in areas of the City designated for General Commercial uses as a principally permitted use, and in areas designated for Multi-Family uses with a conditional use permit.

Responsible Agency: Planning Department

<u>Implementation Actions:</u>	<u>Target Date</u>
Adopt Land Use Element and amend Zoning Code.	December 1994*
Implement ordinance	On-going

Program H5.F: Transitional Housing Designation

In accordance with state housing law, permit the development of transitional housing to provide housing and services for formerly homeless persons in areas of the City designated for General Commercial uses as a principally permitted use, and in areas designated for Multi-Family uses with a conditional use permit.

Responsible Agency: Planning Department

<u>Implementation Actions:</u>	<u>Target Date</u>
Adopt Land Use Element and amend Zoning Code.	December 1994*
Implementation	On-going

Program H5.G: SAVES Program

The City provides administrative funding to the South Antelope Valley Emergency Services Program (SAVES) which provides service referrals for homeless households, provides housing vouchers (including motel vouchers), food baskets, and funds for rehabilitation of the Senior Center from the City's CDBG allocation.

Housing

Responsible Agency: City Administrator

Implementation Actions:

Target Date

Continue to participate in an existing program.

On-going

Objective H5.3: Encourage an increase in the supply of large family housing.

Policy H5.3.1: Encourage an increase in the supply of three and four bedroom rental units available to lower income households with large families.

Program H5.H: Large Family Rental Unit Program

Combine units in rehab projects. Develop a mechanism to encourage housing developments to provide affordable three and four bedroom rental units to meet the needs of large families.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Develop criteria to prioritize some redevelopment set aside funds for large units.

June 1997

Objective H5.4: Increase handicapped access to housing.

Policy H5.4.1: Develop programs to ensure access for the disabled in residential, commercial and public structures.

Policy H5.4.2: Provide assistance to lower income households in retrofitting their homes for handicapped access.

Program H5.I: Handiworker Program (See Program H2.B)

Housing

Program H5.J: Accessibility Guidelines

Develop a single standard for meeting the multiple handicapped access requirements of California Administrative Code, Title 24, and the 1991 federal Americans with Disabilities Act. Require that all new multi-family residential developments, including those serving low income or elderly households, conform to this handicapped access standard.

Responsible Agency: Department of Building and Safety

Implementation Actions:

Target Date

Develop and publish guidelines.

On-going

Program H5.K: Public Information Program on Access

In cooperation with an appropriate agency, develop a public information program on the guidelines of the 1991 Americans with Disabilities Act to ensure that both public and private organizations and individuals in the City of Palmdale understand the rights of disabled persons with respect to housing, transportation, public facilities and employment.

Responsible Agency: Redevelopment Agency

Implementation Actions:

Target Date

Contact an appropriate agency
to develop an information program.

June 1993*
On-going

Objective H5.5: Expand rental assistance to the City's lower income and special needs households.

Policy H5.5.1: Work with the Los Angeles County Housing Authority to reach out to and target rental assistance for households of greatest need including homeless persons, very low income households, large families, female heads of households, and the handicapped.

Housing

Policy H5.5.2: Work with operators of subsidized rental housing in the City to ensure full compliance with required rent restrictions and to ensure full occupancy of subsidized units by eligible households.

Program H5.L: Section 8 Certificate and Voucher Program

The Housing Authority of the County of Los Angeles administers the Section 8 rental assistance program. Eligible Palmdale residents may apply to the housing authority for Section 8 certificates or vouchers.

Responsible Agency: Housing Authority of the County of Los Angeles

Implementation Actions:

Target Date

The housing authority will continue to operate an existing program.

On-going

Identify barriers to utilization of homeless assistance certificates.

On-going

Objective H5.6: Coordinate social services with housing to meet the needs of households with special needs.

Policy H5.6.1: Require that all special needs housing developments be located near needed services and transportation.

Program H5.M: Special Needs Site Review

Conduct a site review of all proposed special needs housing developments to ensure that they are located near needed services and transportation.

Responsible Agency: Planning Department

Implementation Actions:

Target Date

Develop procedures for site review.

On-going

Housing

Policy H5.6.2: Encourage the development of adequate child care facilities to meet the needs of all the City's families.

Program H5.N: Child Care

Assess the adequacy of child care facilities in the City. Cooperate with providers to facilitate the expansion of child care opportunities in the City to meet the needs of all working households. Develop a Zoning Ordinance to facilitate the provision of family day care for six to ten children by home-based providers. Coordinate with the school district to encourage after school programs.

Responsible Agency: Redevelopment Agency and Planning Department.

Implementation Actions:

Target Date

Cooperate with providers in the development of a proposed child care facility.

On-going

Address home family day-care in the Zoning Ordinance.

December 1994*

Implement ordinance

On-going

GOAL H6: Implement energy and water conservation measures.

Objective H6.1: Require all newly constructed housing to utilize a full range of water and energy conservation measures.

Policy H6.1.1: Minimize the consumption of scarce natural resources in residential areas.

Policy H6.1.2: Encourage the full utilization of solar heating and cooling in new development.

Policy H6.1.3: Encourage the layout of subdivisions, design of individual homes, and choice of mechanical systems to reduce energy usage. Promote passive solar energy design.

Program H6.A: Energy and Water Conservation Checklist

Develop an energy and water conservation checklist for each new development.

Responsible Agency: Planning Department

Implementation Action:

Target Date

Continue to implement the City's Water Efficient Landscape Ordinance (Ordinance No. U-992), including the water efficient worksheet, in accordance with the Water Conservation and Landscaping Act as described in Section 65591 of the Government Code.

On-going

Program H6.B: Xeriscape Program

Incorporate landscaping standards requiring xeriscape as a condition of approval for all subdivisions and housing projects.

Responsible Agency: Engineering Department

Implementation Action:

Target Date

Continue an on-going program.

On-going

Program H6.C: Desert Housing Type Demonstration Program

Encourage the development of housing types, site plans and landscape design appropriate to the desert environment. Special construction and plant materials, architectural features and building orientation will be included. Develop a package of

Housing

incentives to be offered to developers who include such housing types in new subdivisions.

Responsible Agency: Planning Department

Implementation Actions:

Target Date

Design program guidelines and submit recommendations.

December 1994*

Program H6.D: Conservation Code Program

Continue to enforce all Uniform Building Code and California Administrative Code Title 24 conservation measures.

Responsible Agency: Department of Building and Safety

Implementation Actions:

Target Date

Continue an existing program.

On-going

Objective H6.2: Provide information and assistance to the public about energy and water saving modifications for existing housing.

Policy H6.2.1: Cooperate with local water districts in the adoption of voluntary water conservation measures during water supply shortages and emergencies as prescribed.

Program H6.E: Energy Saving Modifications Assistance

Cooperate with utility companies to inform public about energy saving modifications for existing housing.

Responsible Agency: Planning Department and Building and Safety

Housing

Implementation Actions:

Target Date

Continue an existing program.

On-going

Program H6.F: Handiworker Program (See Program H2.B.)

Program H2.G: Xeriscape Demonstration Garden

Install a xeriscaped demonstration garden at City Hall to inform the public about gardening with native plants.

Responsible Agency: Public Works

Implementation Actions:

Target Date

Develop a design and budget and submit for approval.

June 1998

SECTION 3: POPULATION

Current Population

In 1980, Palmdale was a small desert community with a population of 12,227. Community economic life was sustained by several large aerospace facilities located in Palmdale itself and nearby Edwards Air Force Base. In the decade between 1980 and 1990 low land costs fostered a boom in housing construction and the population more than quadrupled, adding an average of 5,656 persons each year. By 1990, census data showed a population of 68,842 persons in the City of Palmdale, an increase of 460% over 1980. In the five years following the census, housing production and population growth continued at even higher rates; by the end of 1995, the California Department of Finance estimated that the City's population was 104,656. Table H-1 and Exhibit H-1 show the growth of Palmdale's population over the past 33 years.

Future Population

Factors Affecting Growth

Palmdale's rapid growth is due to its ability to provide low housing prices in an area within commuting distance of employment centers in the Los Angeles urban core. Over the decade between 1980 and 1990, annexations, as well as high rates of housing production, contributed to the City's expansion. Service related employment in the City grew as the City competed successfully for such commercial developments as an auto mall and a large retail mall. Additional aerospace employment is also expected. Single-family homes priced well below those in communities nearer the urban core will continue to attract families to Palmdale despite the commute.

Projected Population

Both SCAG and the Palmdale Planning Department have estimated the City's growth over the next twenty years. SCAG projects that in the year of 2010 the City's population will be approximately 196,415. With a 1995 population of 104,656, the City projects that at build-out, the population will be approximately 253,942. This estimate assumes that at build-out, there will be 88,174 residential units.

Housing

TABLE H-1

**POPULATION (1962-1995)
City of Palmdale**

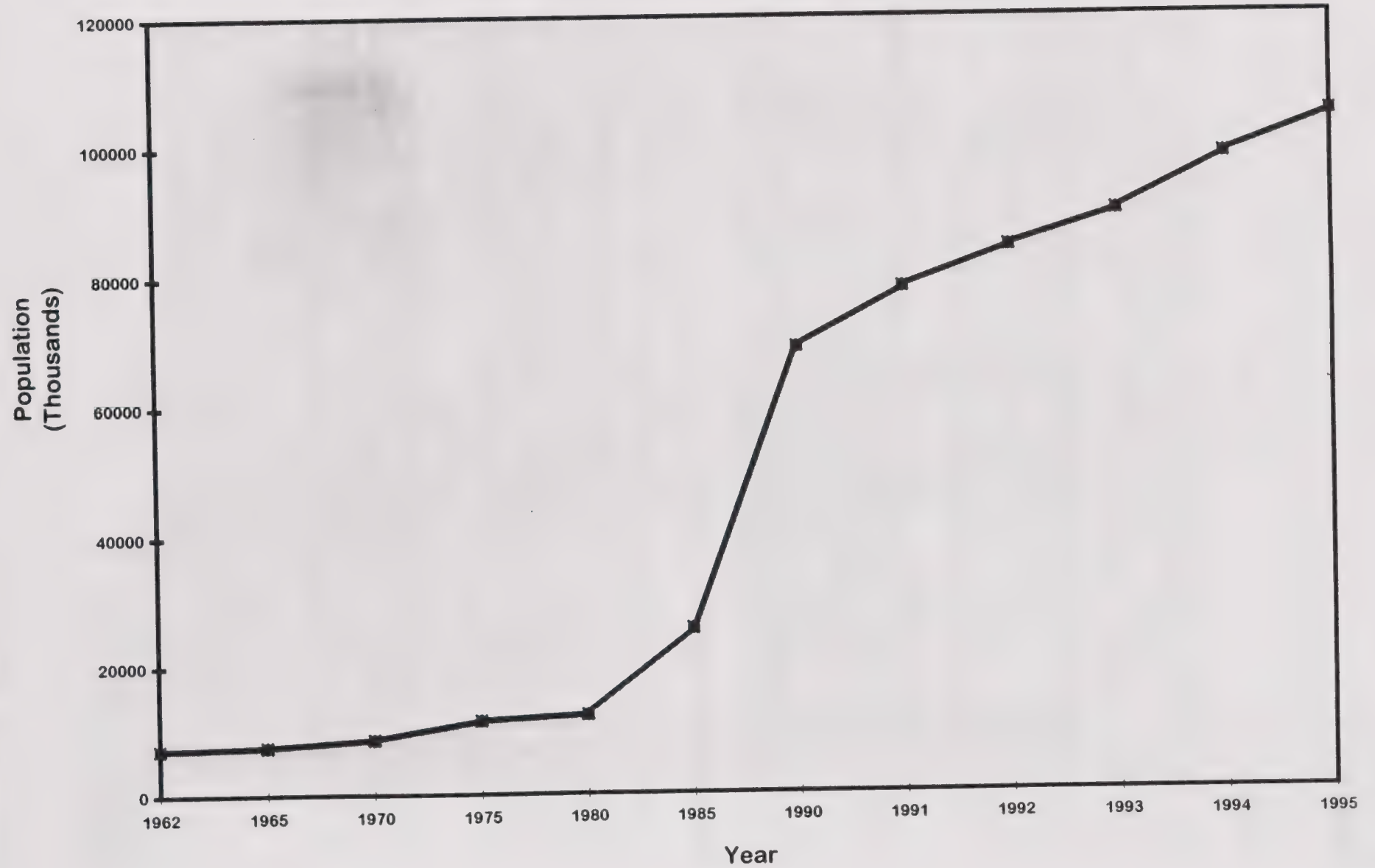
<u>Year</u>	<u>Population</u>	<u>Percentage</u>
1962	7,131	
1965	7,476	5%
1970	8,511	14%
1975	11,400	34%
1980	12,277	8%
1985	25,593	109%
1990	68,842	169%
1991	78,046	13%
1992	84,348	8%
1993	89,754	6%
1994	98,314	10%
1995	104,656	6%

Note: Some population increase is due to annexation of developed areas as well as to new development and natural increase.

Source: City of Palmdale Demographic/Economic Summary, California Department of Finance.

EXHIBIT H-1

Palmdale Population Growth 1962 - 1995



Housing

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General Plan Amendment 96-3
Adopted by City Council
7/10/96

Housing

Age

The 1990 census reveals that Palmdale is a city of young families. In 1990, median age was 27.6, down from 28.7 in 1980. Fully 35% of the population was under 18 years of age. According to the Palmdale School District, school enrollments increased by 11,350 students (336%) between 1979 and 1990. The African-American and Hispanic populations were even younger than the population as a whole, with median age for Hispanics at 22.4 and for African Americans at 24.2. Only the Asian population had a higher median age, 29.8¹. While the number of persons over 65 tripled, from 1,075 in 1980 to 3,274 in 1990, their proportion of the total population was cut in half. In 1990, persons over 65 comprised only 4.8% of the population.

Table H-2 and Exhibit H-2 compare the distribution of age groups in Palmdale with the County and the State. Palmdale's population is younger than the county as a whole. There are higher proportions of children and smaller proportions of older persons than in the County as a whole. With more than half of all mothers in the work force (see Section 4, Employment, Labor Force Participation), child care will be an important community concern over the next few years.

Race and Ethnicity

Table H-3 and Exhibit H-3 show that the ethnic distribution of Palmdale's population changed considerably over the decade. Hispanics, who comprised only 9% of the population in 1980, now make up 22% of the population. The proportion of African-Americans increased to 6% from 3% in 1980, while the proportion of whites in the population declined from 84% in 1980 to 67% in 1990. Asians, only 1% of the 1980 population, increased to 4%, but the proportion of Native Americans decreased from 3% in 1980 to 1% in 1990.

Table H-4 shows that the ethnic distribution of the City's school children is changing even more rapidly than for the population as a whole. In 1990, Hispanics made up 22% of the whole population but 26.7% of elementary school children; African-Americans comprise 6% of the whole population but 8.2% of elementary school

TABLE H-2

CITY AND COUNTY AGE COMPOSITION
City of Palmdale 1990

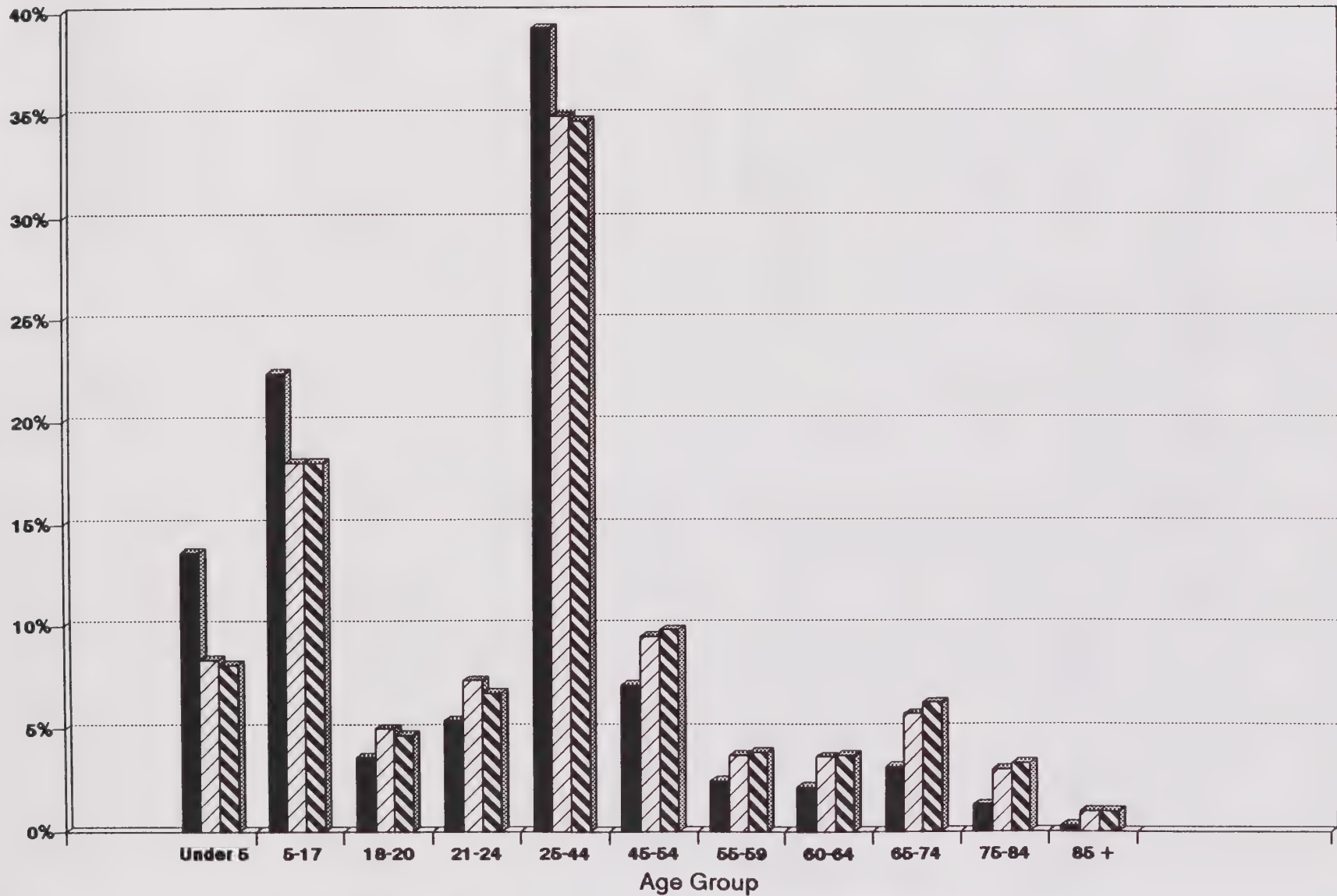
Age Group	Male	Female	City Total	City %	County %	State %
Under 5	4,580	4,360	8,940	13.6%	8.3%	8.1%
5-17	7,984	7,445	15,429	22.4%	18%	18%
18-20	1,266	1,180	2,446	3.6%	5%	4.7%
21-24	1,792	1,901	3,693	5.4%	7.3%	6.7%
25-44	13,578	13,441	27,019	39.2%	34.9%	34.7%
45-54	2,551	2,340	4,891	7.1%	9.5%	9.8%
55-59	847	835	1,682	2.4%	3.7%	3.8%
60-64	689	779	1,468	2.1%	3.6%	3.7%
65-74	938	1,230	2,168	3.1%	5.7%	6.2%
75-84	360	539	899	1.3%	3%	3.3%
85 & Over	74	133	207	.3%	1%	1%
Total	34,659	34,183	68,842	100%	100%	100%

Source: Department of Finance, Southern California Association of Governments, and 1980 and 1990 Census Information.

EXHIBIT H-2
Age in 1990-City, County, State

Housing

PERCENT OF PERSONS



Palmdale Los Angeles County California

General Plan Amendment 96-3
Adopted by City Council
7/10/96

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TABLE H-3

**ETHNICITY BREAKDOWN
City of Palmdale**

Ethnic Group (Persons)	1980	%	1990	%
White	10,357	84%	46,159	67%
Black	404	3%	4,202	6%
American Indian	319	3%	414	1%
Asian/Pacific Islander			2,825	3%
Other Race	50	1%	88	1%
Hispanic Origin (of any race)	1,147	9%	15,154	22%
Total	12,277	100%	68,842	100%

In 1980, American Indian, Asian, and Pacific Islanders were included into one category.

In 1990, Asian and Pacific Islanders were separated into another category.

Source: Department of Finance, 1980 and 1990 Census, and Southern California Association of Governments.

EXHIBIT H-3

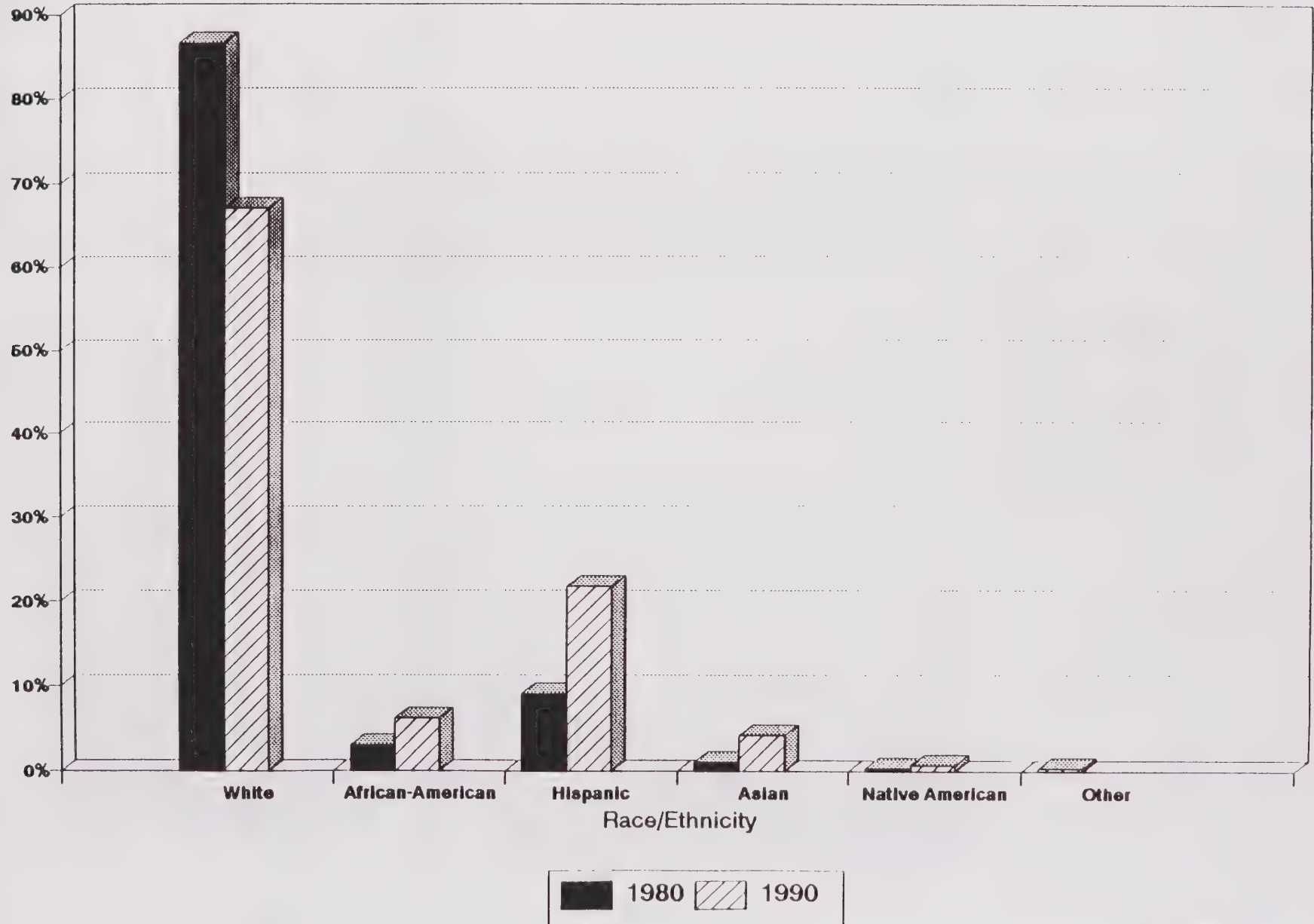
Palmdale Race/Ethnicity 1980-1990

Housing

General Plan Amendment 96-3
Adopted by City Council
7/10/96

H-40

PERCENT OF POPULATION



Housing

TABLE H-4

**PALMDALE ELEMENTARY SCHOOL DISTRICT
(Ethnicity 1989-1990, 1990-1991, 1994-1995)**

School Age Children	January 1989-1990		June 1990-1991		June 1994-1995	
	Number	Percentage	Number	Percentage	Number	Percentage
White	8,334	63.2%	8,642	59.3%	7,964	46%
Hispanic	3,154	24%	3,891	26.7%	6,049	35%
Black	582	7%	1,193	8.2%	2,255	13%
Native American	190	1.4%	208	1.4%	188	1.1%
Asian, Pacific Islander or Other	582	4.4%	641	4.4%	846	4.9%
Total	12,842	100%	14,575	100%	17,302	100%

Source: Palmdale Elementary School District

Housing

children; and Asians, only 1% of the total population, are 4.9% of the elementary school children. Although current estimates for ethnic breakdowns are not available, current ethnic breakdowns for the Palmdale School District are available. These are also shown on Table H-4. These proportions are changing yearly with the largest numerical increases found among Hispanic and African-American children.

Household Size

In 1980, the average household in Palmdale had 2.62 persons; by 1990 the explosion of young families had raised overall household size to 3.14 persons per unit.² Household size in 1990 differed in renter and owner occupied units. Owner occupants had 3.27 persons per household while renter households had 2.82 persons. Household size also varied considerably by ethnicity. Hispanic households had the largest households with an average of 3.93 persons per households, followed by Asians with 3.38 persons, blacks with 3.26 and whites with only 3.01 persons per households. Latino renter households averaged 4.03 persons per household while owner households had only 3.86 persons. Asian renters had 3.51 persons per household while Asian-owner households had 3.36 persons. Table H-5 shows the distribution of household size among owners and renters of the various ethnic groups.

Income

Palmdale households have higher incomes than households in the county as a whole. In 1980, this difference was slight; Palmdale's 1980 median income of 18,864 was 7.5% higher than the county median of \$17,551. In 1990, median household income in Palmdale was \$41,974, 20% higher than the County median income of \$34,965. In 1995, the City's median household income (\$45,890) was again approximately 20% higher than the County's (\$36,538).²⁷ Table H-6 and Exhibit H-4 compare the income distribution in Palmdale and the County for 1990. Data for a 1995 comparison of income distribution is not available. In 1995, the majority of the families are the young, middle income households that have moved to Palmdale in order to buy one of the City's affordable single-family homes. This pattern has continued since 1990.

Housing

TABLE H-5

**1990 HOUSEHOLD SIZE BY TENURE AND ETHNICITY
City of Palmdale**

	Total	White	Black	Amer. Ind., Esk. & Allut	Asian & Pacific Islander	Other Race	Hispanic Origin
OWNER OCCUPIED	50,483	40,785	2,464	329	2,137	4,768	8,530
PERSONS PER UNIT	3.27	3.17	3.29	3.29	3.36	4.23	3.86
RENTER OCCUPIED	18,389	12,073	2,062	266	400	3,588	5,709
PERSON PER UNIT	2.82	2.55	3.22	2.42	3.51	3.96	4.03
TOTAL OCCUPIED	68,872	52,858	4,526	595	2,537	8,356	14,239
PERSONS PER UNIT	3.14	3.01	3.26	2.83	3.38	4.11	3.93

Source: 1990 Census Information and Southern California Association of Governments.

Housing

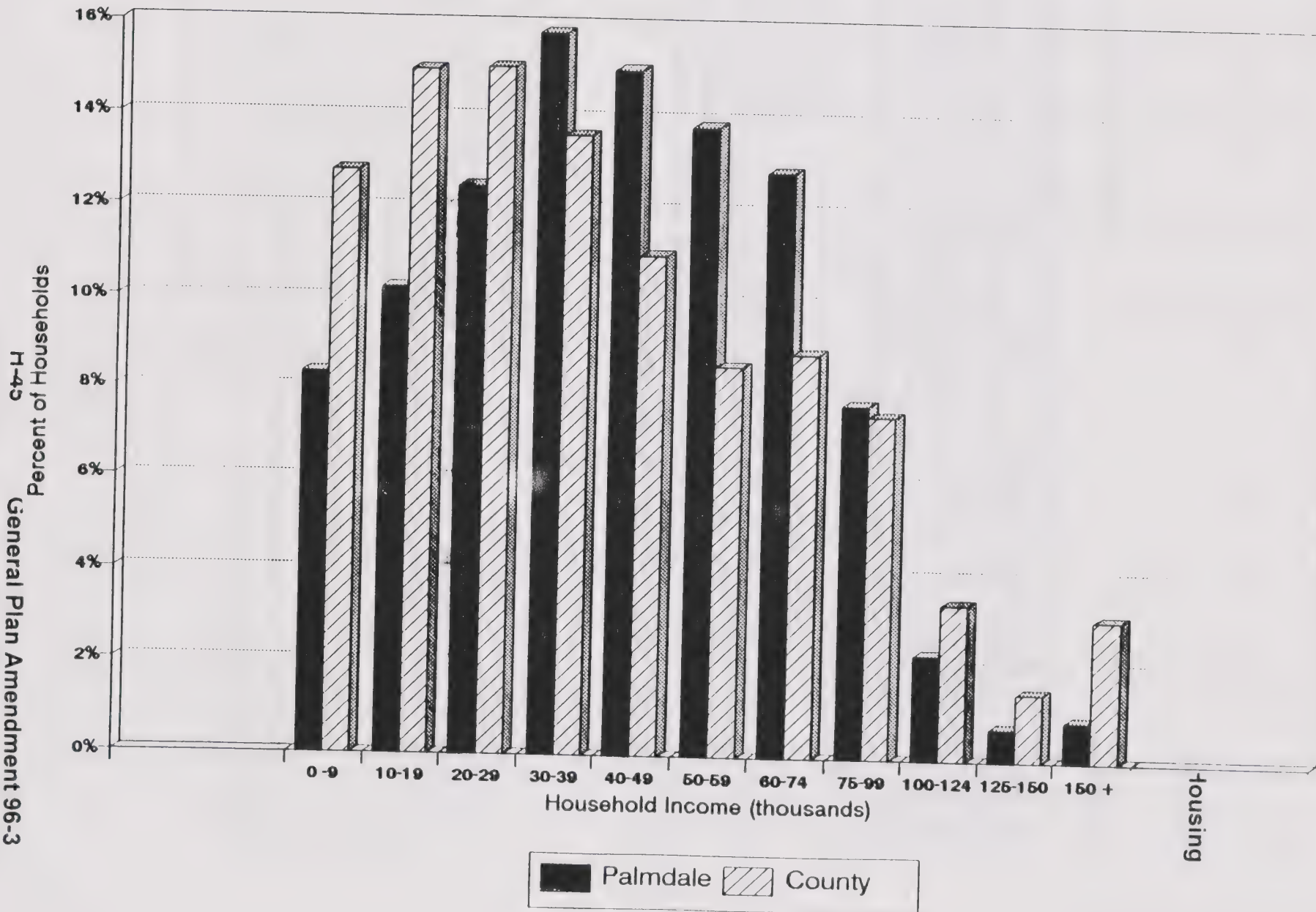
TABLE H-6

**1990 INCOME DISTRIBUTION
City of Palmdale and County of Los Angeles**

<u>Income</u>	<u>City of Palmdale</u>	<u>Los Angeles County</u>
\$0 - 9,999	8.3%	12.8%
10,000-19,999	10.2%	15%
20,000-29,999	12.5%	15%
30,000-39,999	15.8%	13.6%
40,000-49,999	15%	11%
50,000-59,999	13.8%	8.5%
60,000-74,999	12.8%	8.8%
75,000-99,999	7.7%	7.5%
100,000-124,999	2.3%	3.4%
125,000-149,999	.7%	1.4%
150,000 plus	.9%	3%

Source: City of Palmdale/Los Angeles County

EXHIBIT H-4 1990 Income, City and County



H-4b
General Plan Amendment 96-3
Adopted by City Council
7/10/96

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Poverty

The federal government has several different standards by which it determines eligibility for assistance from federal programs. In order to qualify for the Section 8 housing assistance programs, families must be very low income; that is, earn 50% or less of median County income as determined by the Department of Housing and Urban Development (HUD). In 1980, HUD set median income in Los Angeles County at \$39,100. In Palmdale, 20% of all households were very low income; that is, earned less than 50% of the County median income. Countywide, in 1990, 29.3% of all households were very low income.

Poverty, as measured by the census, is about 30% of median income. In 1990, the federal poverty level was an income at or below \$12,294. Table H-6 shows the distribution of households in poverty in Palmdale in 1990. According to the census, in 1990, there were 1,741 households, with 6,077 household members, living below poverty level. In these households were 286 persons over 65. Forty-six percent of female-headed households with children were living in poverty in 1990.

Summary of Population Characteristics

Palmdale's population grew from 12,277 persons in 1980 to 68,842 persons in 1990, an increase of 460%. Between 1990 and 1995, the City's population increased by an additional 35,814 persons to 104,656. The City's 1990 population was younger, wealthier and more ethnically diverse than in 1980. In 1990, 22% of Palmdale's population was of Hispanic origin and included within each ethnic group. Distribution by race in 1990, was as follows: 6% African-American, 67% white, 4.0% Asian, 1% Native American and 22% Hispanic. In 1990, median age in 1990 was 27.6 and 35% of the population was under 18. Only 4.8% of the population was over 65. Median income was \$41,974, compared to \$34,965 in the county and in 1995 the median income was \$45,890 compared to the County's of \$36,538. In 1990, 20% of the City households had incomes below 50% of the median income and 8% of all households lived below the poverty line.

SECTION 4: EMPLOYMENT

Labor Force Participation

Labor force participation in Palmdale is a little higher than that for the County overall, 72% compared to 67%. The proportion of women with children who are working are about the same in the City and County, except that in the City, 48.8% of women with children under six and no older children are working, while in the County, that proportion is 51.2%. Overall, unemployment in 1990 was 6.9%. In January 1995, the unemployment rate in the County of Los Angeles was 8.9% while in December of the same year the rate dropped over one full percent to 7.7%. This rate, however, is still one of the highest in the nation.²⁸ No separate data exist for Palmdale.

Fifty-five percent of all women over 16 in Palmdale were employed in 1990. The highest employment rate was among women with children between ages six and 17. The employment rate of this group was 65.3%. Among women with children under six, 48.8% were employed and among women with children both older and younger than six, 46.7% were employed. Employment among women with no children under 18 was 52.8%³.

Occupation and Education

Although median income in Palmdale is higher⁴ than in the County overall, higher proportions of persons in the County have college and post-graduate degrees and a slightly higher proportion in the County are employed in executive or professional capacities. The greatest difference in the occupational profile between Palmdale and the County as a whole is in the area of precision production, craft and repair occupations, a category that includes construction workers. In Palmdale, 18.7% of all workers were in this category. Their numbers may have been somewhat reduced by the slowdown in construction over the last several years. In the County overall, only 10.2% of workers were in precision production. Otherwise, the occupational profiles of City and County are similar (refer to Exhibit H-5). Table H-7 and Exhibit H-6 compare occupations in the City in 1980 and 1990.

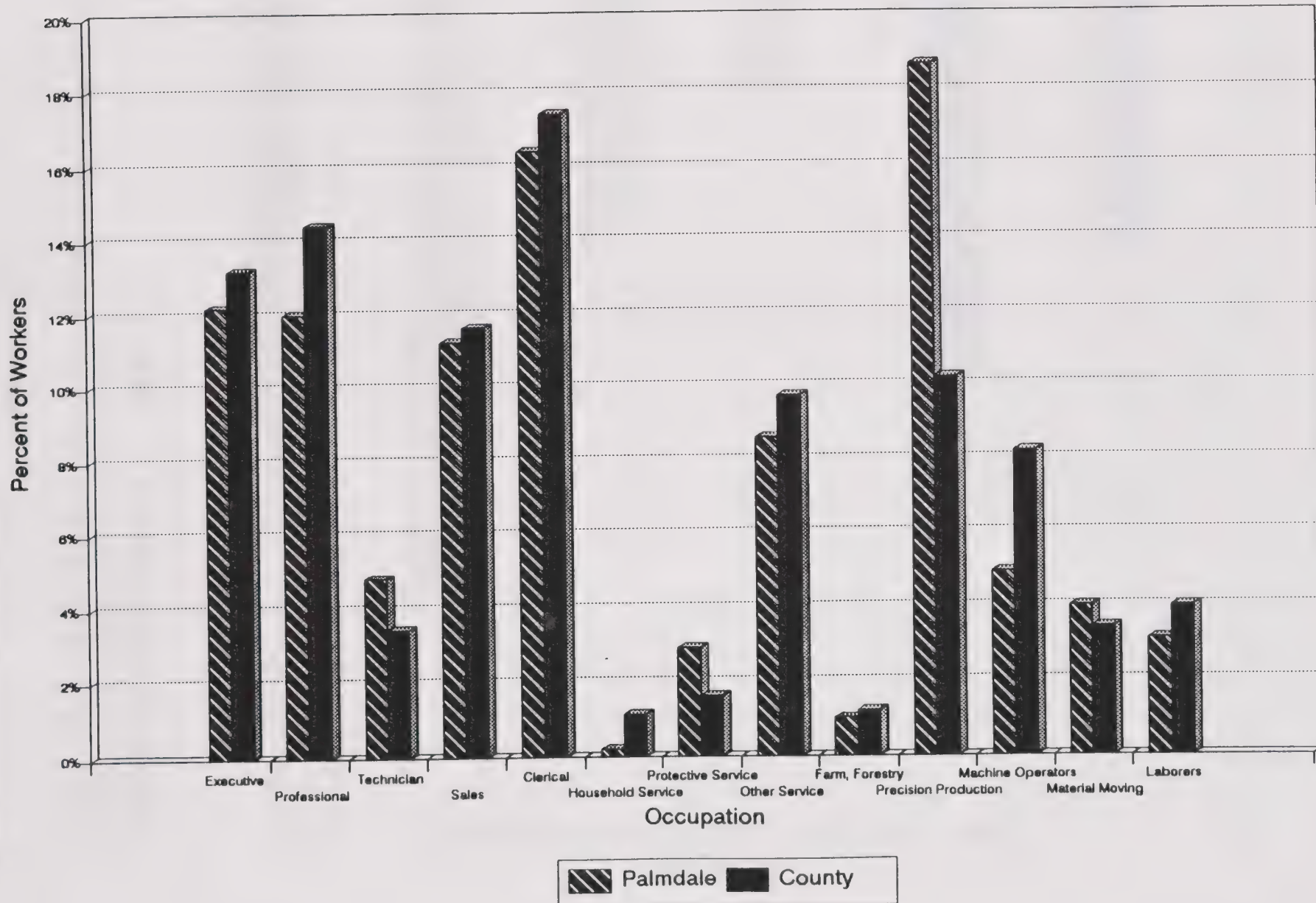
Housing

Types of Employment

In the Antelope Valley, the majority of employment, 69.1%, is in service-producing businesses. The goods-producing sector, including manufacturing, mining and construction, comprises 30.9% of all employment. The relative distribution of employment between services and goods is somewhat different in the County overall where production accounts for only 24.5% of employment.⁵

EXHIBIT H-5

1990 Occupations, City and County



Housing

EXHIBIT H-6

Palmdale Occupations 1980 and 1990

Housing

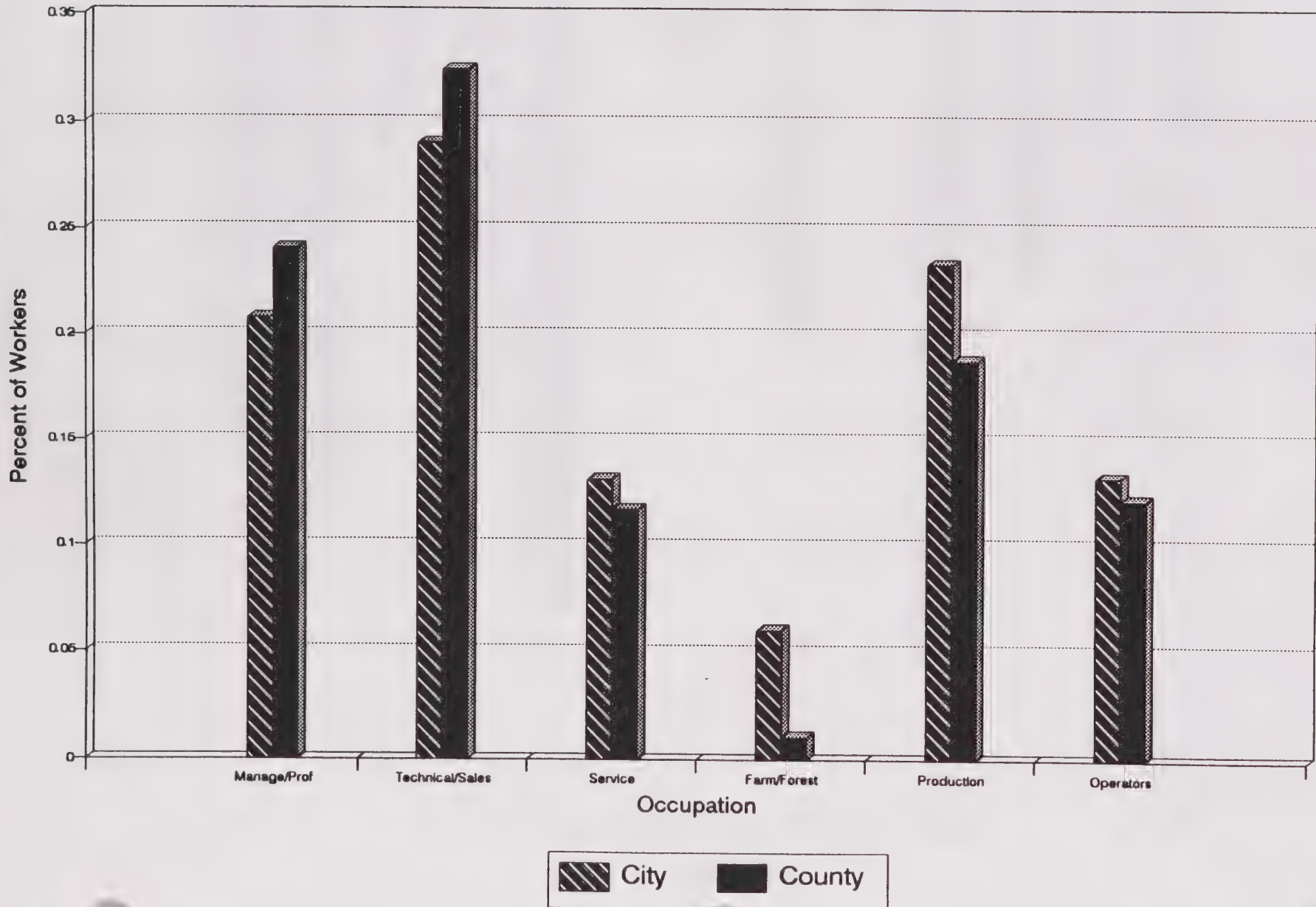


TABLE H-7

**Occupation by Type within the City of
Palmdale, 1980 and 1990**

Occupation	1980	1990
Managerial/Professional Specialty	20.8%	24.1%
Technical/Sales Administrative Support	29.0%	32.4%
Service	13.1%	11.7%
Farming/Forestry/ Fishing	6.0%	1.0%
Precision Production/ Craft and Repair	23.3%	18.7%
Operators/Fabricators/ and Laborers	13.2%	12.1%
Source: 1980 and 1990 Census Information, and Southern California Association of Governments		

Aerospace is the dominant industry in the Antelope Valley. Lockheed, Rockwell International and Northrop Aircraft all produce military aircraft and aerospace technology in the area. There is also a NASA installation. Other manufacturing firms

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include U. S. Borax and Chemical Corp. and California Portland Cement. The City is actively recruiting manufacturing concerns to relocate or expand in Palmdale.

Edwards Air Force Base, an aerospace research facility, is the largest employer in the Antelope Valley with 13,780 civilian and military employees in 1990. Other large employers include three hospitals, the Federal Aviation Administration, three school districts, the public utilities companies and Antelope Valley College.

Throughout the decade between 1980 and 1990, construction was a significant part of the Palmdale economy. During most of the decade, at least 2,000 new single-family units were built every year. Between 1989 and 1991, nearly 16,000 units were built, more than 5,000 each year. The recession has slowed housing production since 1991; however, the City estimates that production of between 1,500 and 2,000 units a year will continue to the end of the century.

In addition to thousands of residential units, more than 428,000 square feet of new office space were constructed between 1984 and 1991 and a number of large and small retail centers were added to the City. Recent large retail developments include the Antelope Valley Auto Center, the 750,000 square foot Antelope Valley Mall and the Palmdale Promenade Center with 360,000 square feet of retail space.

The City estimates that there were approximately 36,089 jobs in Palmdale in 1994-1995. Despite the recession, the City expects continued expansion of employment, with short-term growth concentrated in aerospace and related businesses. Retail, medical services and education have all increased in response to population growth and are expected to continue growing. Palmdale's long range economic plans include the development of a regional airport and a high speed train to connect the airport to the Los Angeles urban core.

The City projects that in 2010, total employment in the City will be 69,067 which is comprised of both industrial and commercial employees. These projections were calculated on the basis of land allocated for commercial and industrial development. The jobs housing ratio projected for 2010 is be .93⁶.

Commuting

According to the 1990 census, mean travel time to work for Palmdale residents was 41 minutes, while in the County, overall mean travel time was only 26 minutes. Larger proportions of Palmdale residents had long commutes than those in the County, overall. Nearly half (48%) of Palmdale's work force drive at least 45 minutes to work with fully 36% commuting an hour or more. In the County as a whole only 17% were commuting 45 minutes or more and only 8.4% drove an hour or more⁷.

The most frequently used travel mode was a car, truck or van, with 70.4% of all workers choosing this mode to get to work. Public transportation links between the Antelope Valley and the Los Angeles metropolitan area are somewhat limited, but are expected to develop more fully in the future. Of those driving in a car, truck or van, one quarter carpooled; the other 75% drive alone. In the County, carpooling was even less popular; only 18% of all those driving in a car, truck or van chose to carpool. However, a much higher proportion of County residents used public transportation to get to work than did Palmdale's workers. In Palmdale, only 252 persons or .9% of those not working at home used public transportation; in the county overall 6.6% of those not working at home used public transit.⁸

Caltrans is currently widening the Antelope Valley Freeway (State Route 14) because the volume of commuters creates traffic problems. Traffic problems are most acute in the Soledad Canyon area which is gridlocked at peak traffic flow.

In response to a question about carpooling in a recent survey of Palmdale residents, 45% of respondents expressed a willingness to carpool if more information was provided. The survey also found that most respondents would like to reduce their commute and work instead in local industries and businesses.

Summary of Employment

Sixty-seven percent of adults 16 and over were in the labor force in 1990. Among women, 55% were employed. Nearly half of all women with children under six, and 65.3% of women with children over six, were employed. The distribution of occupations was similar to the county with one exception: in 1990, a higher percentage of Palmdale

Housing

residents worked in precision crafts than in the County as a whole. Aerospace, construction and the retail commercial sectors dominated Palmdale business in 1990 and service-related businesses comprised 69.15 of all Palmdale business. Nearly half (48%) of all Palmdale's workers were commuting 45 minutes or more in 1990. Most workers (70.4%) made the trip to work in a car, truck or van; one quarter of those carpooled, the other three quarters drove alone.

SECTION 5: HOUSING CHARACTERISTICS

Current Number and Type of Housing Units

The 1990 census counted 24,418 housing units in the City of Palmdale. In January 1995, the California Department of Finance's Demographic Research Unit estimated that there were 35,780 housing units in the City, an increase of 46.5% in only five years. This increase was comprised mainly of single-family homes, and approximately 400 multi-family units. Population growth has not quite kept pace with the astounding increase in the housing stock; estimated 1995 vacancy rates in Palmdale were 12.63%. This is a relatively high vacancy rate in comparison with the County which has an overall vacancy rate of 6.4%. Table H-8 compares housing characteristics and population in the City in 1980, 1990 and 1995.

Vacancy

In 1990, according to the census, 10% of all the housing units in Palmdale were vacant; 8.7% of all single-family units were vacant, 8.4% of condominiums were vacant, 4% of mobile homes were vacant and 15.9% of all rental units were vacant. Part of the extraordinary vacancy is due to the departure of construction and their families who were brought in from other areas at the height of the housing boom. Rental unit vacancies were particularly high in large projects with 50 or more units¹⁰.

Housing

TABLE H-8

**Housing Characteristics and Population
1980, 1990 and 1995**

	1980		1990		1995 Est.	
	No./Value	%	No./Value	%	No./Value	%
Number of Households	4,658		21,952		31,262	
Person per Household	2.62		3.14		3.345	
Dwelling Units	4,982		24,400		35,780	
Single Family Detached	2,973	59.7%	16,293	66.8%	26,882	75.1%
Single Family Attached	141	2.8%	487	2.0%	565	1.6%
Multi-Family	1,524	30.7%	5,529	2.6%	6,366	17.8%
Mobile Home	340	6.8%	2,091	8.6%	1,967	5.5%
Vacancy Rate		6.4%		11.12%		12.63%
% Owner Occupied		59.0%		70.3%		N/A
Median Household Income						
Palmdale	18,788		41,974		45,895	
County of Los Angeles	17,551		34,965		36,538	
Median House Price						
Palmdale	60,100		149,700		107,785	
County of Los Angeles	87,400		226,400		175,620	

Source: 1980 and 1990 Census, 1995 Department of Finance, , California Board of Realtors, Stewart Title, Dunn Bradstreet's 1996 Market Profile Analysis, Los Angeles County Regional Planning and Urban Research Division.

Housing Tenure

Over the decade, between 1980 and 1990, the rate of home ownership in Palmdale rose from 59% to 70.4%. During the same period in the County, the rate of home ownership held almost steady, changing from 48.5% to 48.2%. Tenure varied by race and ethnicity. The ethnic distribution of home ownership in Palmdale was: white, 73.1%; African-American, 53.9%; Native American, 47.6%; Asian and Pacific Islander, 84.8%; other race 55.4% and Hispanics 60.9%. (See Table H-5, Section 1, Household Size, Tenure and Ethnicity.) Because the proportion of home ownership countywide was lower, home ownership was lower for each of the ethnic groups. The ethnic distribution of home ownership countywide was: white, 53.7%; African-American, 36.4%; Native American 36.5%; Asian, 51.4% and Hispanic 34.8%¹¹.

Renters occupied both multi-family and single-family units in 1990. Only 22.7% of the City's housing units were in multi-family rental buildings in 1990 but 29.6% of all households were renters. The additional renters live in single-family units and, in a few cases, rented mobile homes. In 1990, 8.7% of the single-family units were vacant and 9.9% were occupied by renters¹².

Historic and Projected Growth

In the fifteen years between 1980 and 1995, the number of housing units in Palmdale increased from 4,982 to 35,780, an average of 2,053 units per year. Rates of growth varied each year with growth beginning to accelerate in 1985 and peaking in 1987, when more than 3,200 units were produced. There was another surge in 1990 when more than 4,000 units were produced. Applications for building permits have fallen off considerably in the last few years, and completion of permitted units has also slowed to approximately 1,000 - 1,500 per year. Table H-9 shows the growth in the City's housing stock over the last 15 years.

Housing

TABLE H-9
HOUSING STOCK GROWTH
City of Palmdale

<u>Year</u>	<u>Single Family</u>	<u>%</u>	<u>2 - 4 Units</u>	<u>%</u>	<u>5 or More Units</u>	<u>%</u>	<u>Mobile Homes</u> <u>Number</u>	<u>%</u>	<u>Total # of</u> <u>Units</u>	<u>Annual</u> <u>Growth %</u>
1980	3,114	62.5	307	6.2	1,217	24.4	344	6.9	4,982	
1981	3,472	64.7	307	5.7	1,239	23.1	349	6.5	5,367	7.73
1982	3,925	64.5	327	5.4	1,319	21.7	511	8.4	6,082	13.32
1983	4,186	62.3	366	5.5	1,559	23.2	604	9	6,715	10.41
1984	4,656	61.6	394	5.2	1,790	23.7	723	9.5	7,563	12.63
1985	5,513	62.7	399	4.5	2,130	24.2	751	8.6	8,793	16.63
1986	6,785	63	403	3.7	2,519	23.3	4,063	10	10,770	22.48
1987	8,741	62.5	415	3	3,518	25.1	1,390	9	13,983	29.83
1988	10,452	61.7	468	2.8	4,723	27.9	1,292	8	16,935	2.11
1989	12,963	64.8	486	2.7	5,073	25.3	1,497	8	20,019	18.21
1990	16,787	69.8	533	2.2	5,233	21.8	1,498	6	24,051	20.1
1991	19,883	71.8	817	2.9	4,951	17.9	2,019	7	27,670	15
1992	21,539	73.4	854	2.9	4,951	16.9	2,004	7	29,348	6.1
1993	23,517	74.8	866	2.8	4,996	15.9	2,042	7	31,421	7.1
1994	25,845	75.9	873	2.5	5,337	15.6	2,010	6	34,065	8.4
1995	27,447	76.7	869	2.4	5,497	15.4	1,967	6	35,780	5

Source: Population and Housing Estimates provided by the California Department of Finance. Figures are calculations as of January 1st of each year.

The City's Land Use Element, which was adopted in 1993, has reduced allowable densities on most of the land within the City limits, and although there are several large specific plans planned in the City, construction will be phased over 20 years. Based on changes in land use, infrastructure constraints and the slowdown in the economy, the City is projecting an average growth rate of 1,500 to 2,000 units between 1995-1999. The maximum estimated residential capacity of the City and Planning Area at buildout is 88,174 units.

Overcrowding

The census regards a unit as overcrowded if there are 1.01 or more persons per room excluding the kitchen and bathroom. Thus, a one-bedroom apartment (two rooms) occupied by three persons is overcrowded according to the census. A unit is considered severely overcrowded if there are 1.51 or more persons per room. A two-bedroom apartment with four persons would not be overcrowded but with five persons would be severely overcrowded.

Overcrowding often indicates a problem with housing affordability. As housing costs rise, families rent smaller units or add family members to current households in order to keep housing costs within the family's ability to pay. A four-person household may crowd into a one-bedroom unit or two families may decide to share a single house. Areas where housing cost are more "affordable" should have less crowding. This is true of Palmdale where only 9.1% of households are overcrowded compared to 19.1% in the County overall. Only 3.5% of all units are severely overcrowded compared to 19.1% in the County overall. Only 3.6% of all units are severely overcrowded while in the County 12.5% of all units are severely overcrowded. So, even though Palmdale households are larger than the average for the County overall - 3.14 compared to 2.91 - they are less overcrowded. As data presented in the section on income and housing price will demonstrate, larger households in Palmdale are able to obtain housing of an appropriate size because housing in Palmdale is less expensive.

Nevertheless, the presence in 1990 of 781 severely overcrowded households in the City indicates a need for housing programs to address both cost and size of housing units for a portion of the population¹³.

Housing

Mobile Home Parks

Mobile homes are an important housing type in Palmdale, comprising 6.8% of the housing stock. In 1995, there were 1,967 mobile homes in the ten mobile home parks as listed in Table H-10. Mobile home owners usually lease the space occupied by the mobile home, but these lease costs are not surveyed by the census. While the mobile home itself may be acquired at an affordable price, increasing lease costs can become burdensome, particularly to households on fixed incomes. The cost of mobile home park leases is an issue in Palmdale where the City Council has adopted an ordinance that subjects lease costs to rent control. Other issues affecting these parks will be negotiated by a task force comprised of mobile home park tenants and owners, local lenders and City staff.

TABLE H-10

MOBILE HOME PARKS IN THE CITY OF PALMDALE/1995/1996

1.	Domenic's Adult Mobile Home Estates 38015-30th Street East Palmdale, CA 93550 947-4274	4.	Sagetree Village Mobile Home Community 3524 East Avenue R Palmdale, CA 93550 947-6636
Number of Spaces:	33	Number of Spaces:	330
Year Opened:	1964	Year Opened:	1971
Subject to Rent Control:	Yes	Subject to Rent Control:	Yes
Rents:	\$185	Rents:	\$315
Last Board Decision:	6/95	Last Board Decision:	9/94
2.	Grecian Isle Mobile Home Community 4444 East Avenue R Palmdale, CA 93550 947-4444	5.	Almond Heights Mobile Estates 40701 Rancho Vista Blvd. Palmdale, CA 93551 943-2553
Number of Spaces:	157	Number of Spaces:	358
Year Opened:	1972	Year Opened:	1985
Subject to Rent Control:	Yes	Subject to Rent Control:	No
Rents:	\$250-\$300	Rents:	\$295-\$388
Last Board Decision:	8/91		
3.	Sierra Vista Mobile Home Estates 3255 East Avenue R Palmdale, CA 93550 947-4700	6.	Rolling Hills Estates 1030 East Avenue S Palmdale, CA 93551 273-8154
Number of Spaces:	298	Number of Spaces:	223
Year Opened:	1977	Year Opened:	1985
Subject to Rent Control:	Yes	Subject to Rent Control:	No
Rents:	\$204-\$285	Rents:	\$300-\$464
Last Board Decision:	9/91		

TABLE H-10

**MOBILE HOME PARKS IN THE CITY OF PALMDALE/1995/1996
(Continued)**

7. Palmdale Mobilehome Park 38015 65th Street East Palmdale, CA 93550 285-3930 or 303-771-7462	9. Thousand Elms Mobile Lodge 37311 N. 47 th Street East Palmdale, CA 93550 285-4555
Number of Spaces: 45 Year Opened: Subject to Rent Control: Yes Rents: \$215	Number of Spaces: 222 Year Opened: Old Section-1954 New Section-1966 Subject to Rent Control: Yes Rents: \$170-\$205 Last Board Decision: 12/90
Last Board Decision: 4/95	
8. Ponderosa Vista 5200 Entrar Drive Palmdale, CA 93551 943-2409	10. Joshua View Mobile Home Park 6150 E. Avenue T Palmdale, CA 93550 533-3300
Number of Spaces: 206 Year Opened: 1988 Subject to Rent Control: Yes Rents: \$295-\$395 Last Board Decision: 8/91	Number of Spaces: 68 Year Opened: Subject to Rent Control: Yes Rents: \$225-\$265 Last Board Decision:

Subsidized Housing

Current programs of housing assistance in Palmdale include 505 units of family and senior housing in four HUD-assisted projects (Section 236(J)(1) and Section 221(D)(4)); 110 units of moderate income rental housing in four projects developed with mortgage revenue bond financing; 10 households in units subsidized by Section 8 moderate rehabilitation programs; and 372 households receiving Section 8 certificates and vouchers. In April 1995, there were approximately 1,000 households on the Section 8 waiting list maintained by the County Community Development Commission.

Housing Age and Condition

An examination of Table H-11 reveals that the vast majority of housing units in Palmdale are less than 10 years old. In fact, 19,173 units of the City's housing stock, were built in the seven years between 1985 and 1995. Between 1980 and 1995, 30,798 units were constructed, comprising 86.1% of the City's dwelling units. Because the housing stock is so new, the survey of housing conditions which was conducted by the City in 1992, was confined to areas where older units are concentrated.

The location of older units in the City was determined from aerial photos. Each area was numbered. The total number of units in each area was estimated by first estimating the number of acres in each area and then estimating the number of units by multiplying the historical density (units per acre) in that area times the number of acres. A random sample of 10% of all units was selected from an estimated 10,379 in the survey area.

The survey found that an estimated 8% (160) of the City's mobile homes need moderate rehabilitation. Among multi-family units, an estimated 12.7% (740 units) need moderate rehabilitation and 11% (530 units) need substantial rehabilitation. Single-family units were also surveyed; an estimated 9% (1,930 units) need moderate rehabilitation and 11% (410 units) need substantial rehabilitation. Overall, an estimated 8% of mobile homes, 21.7% of multi-family units and 11% of single-family units, 3,770 units in all, need rehabilitation. These estimated 3,770 units comprise 12.8% of the City's housing stock. Table H-12 summarizes the findings of the survey while Exhibit H-7 provides a map of the survey area.

Housing

TABLE H-11

**AGE OF HOUSING STOCK 1995
City of Palmdale**

<u>Year Built</u>	<u>Total Units</u>	<u>%</u>
1991 to 1995	7,676	21%
1989 to 1990	7,426	21%
1985 to 1988	10,495	29%
1980 to 1984	4,217	12%
1970 to 1979	2,092	6%
1960 to 1969	1,317	4%
1950 to 1959	2,198	6%
1940 to 1949	218	.7%
Before 1940	141	.3%

Source: 1990 Census and 1995 Department of Finance.

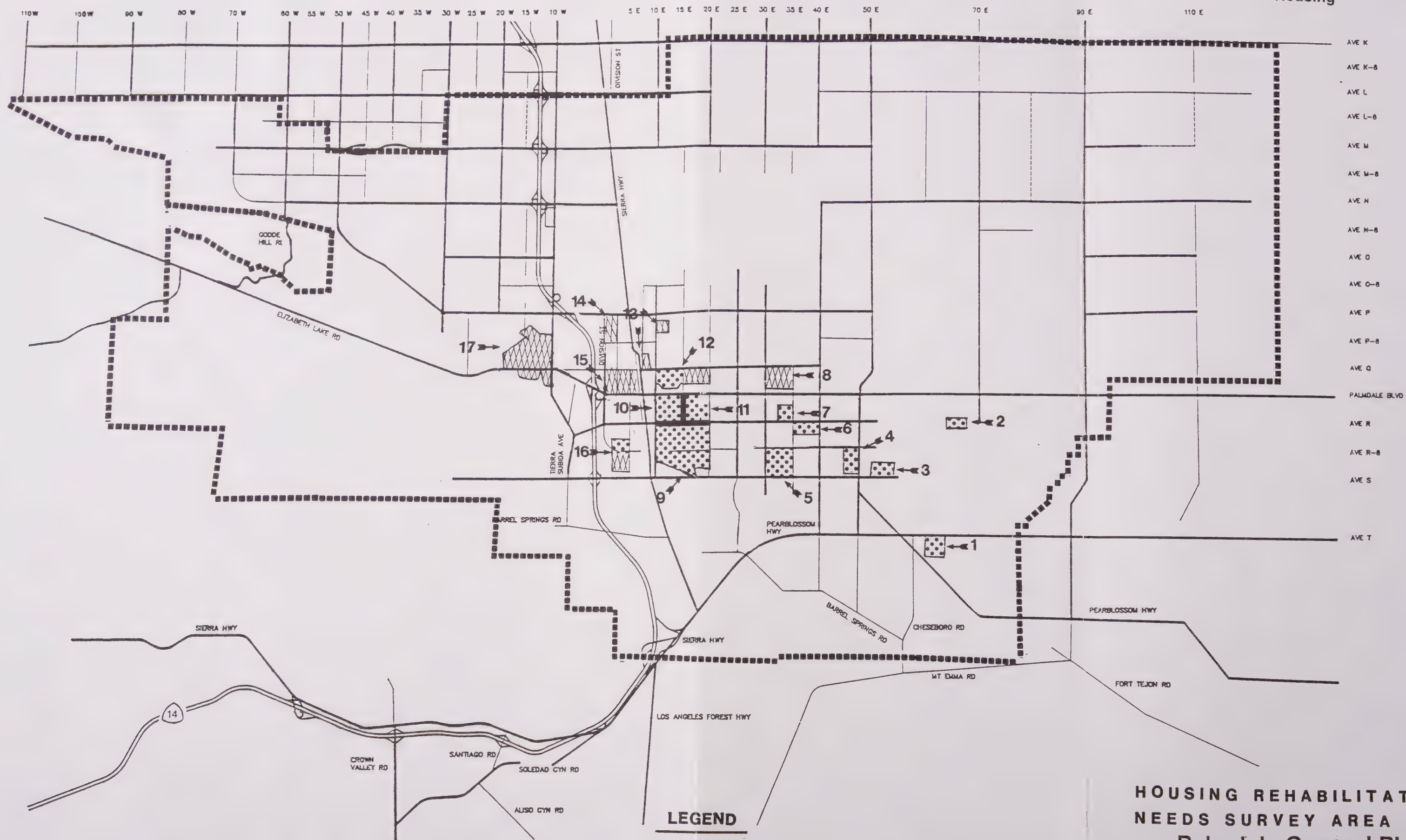
Summary of Housing Characteristics

Between 1980 and 1990 the City housing stock's increased 460%. By 1995, housing units had increased another 49%. In 1995, the composition of the City's housing stock was 75.1% single-family units, 17.8% multi-family units, 5.5% mobile homes and 1.6% condominiums. In 1990, owner occupants comprised 70% of the population; the overall vacancy rate was 10% and vacancies in multi-family rental units were 15.9%. In 1995, the vacancy rate was 12.61%. Overcrowded households comprised 9.1% of all households; 3.6% of all households were severely overcrowded. Most of the City's housing stock was less than 10 years old; only 13.9% of all units were built before 1980. A 1992 survey of a random sample of units in older areas of the City estimated that there are 2,830 units needing moderate rehabilitation and 940 dilapidated units needing substantial rehabilitation.

Housing

TABLE H-12
HOUSING CONDITIONS SURVEY 1992
City of Palmdale

Survey Area	Unit Type	Est. Total Units	Score Range	Score Average	Moderate Rehab	Dilapidated 17-20	Total Rehab Need 13-20
1	MH	66	10-14	12	10	0	10
2	MH	60	12-14	13	40	0	40
3	SFR	228	10-15	12.5	60	0	60
4	MH	216	10-15	12.5	70	0	70
5	SFR	30	10-12	11	0	0	0
6	MH	157	NONE	10	0	0	0
7	MH	298	10-15	12.5	40	0	40
8	SFR	804	8-16	12	140	0	140
9	SFR	1,200	10-20	15	490	280	770
10	MFR	681	5-19	12	90	0	90
10	SFR	341	5-20	14.1	110	30	140
11	SFR	830	9-17	13	130	10	140
11	MFR	320	10-14	12	90	0	90
12	SFR	860	10-20	15	160	20	180
12	MFR	340	11-16	13.5	330	0	330
13	SFR	160	10-16	13	120	0	120
14	SFR	160	10-15	12.5	40	0	40
15	SFR	1,348	10-20	15	360	30	390
15	MFR	572	10-16	13	220	200	420
16	SFR	320	10-19	14.5	160	30	190
17	SFR	700	10-16	11.5	160	0	160
17	MFR	650	10-12	10.2	0	0	0
18	SFR	30	12-17	15	10	10	20
18	SFR	20	14-17	15.5	10	10	20
NON-SURVEY AREA	MH	904					
	MFR	3,244					
	SFR	14,821					
TOTAL	MH	2,004			160 8%	0	160 8%
	MFR	6,805			740 12.7%	530 9%	1,270 21.7%
	SFR	21,539			1,930 9%	410 2%	2,340 11%



LEGEND

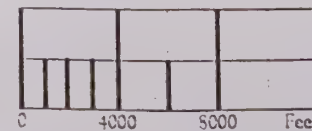


Housing Condition Survey Area
City of Palmdale



Housing Condition Survey Area
L.A. County

HOUSING REHABILITATION
NEEDS SURVEY AREA
Palmdale General Plan



H-67

General Plan Amendment 96-3
Adopted by City Council

Exhibit H-7

SECTION 6: HOUSING NEEDS

Income Definitions¹⁴

The following terms are used throughout this document to describe income levels in terms of housing needs. These definitions are used by the Department of Housing and Community Development (HCD) for their Section 8 Housing Program.

Very low income. Very low income for HCD is 50% of median income or below. In 1995-96, families earning less than \$25,650 were very low income. Affordable rent for a family in this income category ranges from about \$427 to \$641 for a two-bedroom apartment excluding a utility allowance.

Low income. Low income for HCD is between 50% and 80% of median income. For a family of four in 1995-96, low income is \$41,050. Affordable rent in this income category ranges from about \$641 to \$1,026 per month excluding a utility allowance.

Middle income. HCD defines "middle income" as income between 80% and 120% of median income. The 1995-96 median income in the County of Los Angeles as defined by HCD is \$51,300. Depending upon income, this family would be able to afford a house priced between \$100,000 and \$150,000. Palmdale's new housing is priced in this range, with housing sales in 1995 averaging about \$107,000.

Moderate income. HCD considers annual household income over 120% of median to be "moderate income." In 1995-96, income of \$61,550 or more is considered moderate income. Housing affordable to "moderate" income households generally begins at about \$150,000.

Poverty. Poverty is a measure used by the census. In 1990, it was \$12,294; in 1993, it was \$14,764. (Note: These statistics were generated in 1993 by the Bureau of the census.) No new data is available. The poverty level is typically about 30% of median income. Households living at or below poverty can only afford to pay about \$370 or less for rent. Seniors and disabled persons with only a social security check, families on AFDC and even many elderly pensioners all have incomes well below poverty.

Housing

Regional Fair Share

Land Use and SCAG Fair Share

Between 1980 and 1989, a total of 18,744 new housing units were constructed in Palmdale, an average of 1,874 units per year. More than two-thirds, 71% of these units were single-family dwellings while 20% were multi-family units. The remaining 9% of the community's housing stock was comprised of mobile homes.

Between 1989 and 1994, the pace of housing development accelerated so much that during that time, Palmdale met and surpassed SCAG's Regional Housing Needs Allocation of 10,388 units by approximately 3,811 (136% of the allocated amount) units. As such, a total of 14,199 units were constructed. The large majority of these units were single family detached; however, approximately 400 multi-family units were also constructed during the same time frame. The original goal of providing 10,388 units was met at the end of 1992 when 1,998 units were constructed. During that year, the 10,388 mark was surpassed by 935 units with a new total of 11,323 units.

Table H-13

SCAG Fair Share 1989-1994

Very low	1,627
Low	2,388
Middle	1,973
High	4,400
Total	10,388 units

Actual Performance 1989-1994 (1995 included)

1989	4,032
1990	3,619
1991	1,674
1992	1,998
1993	1,425
1994	1,451
1995	1,128
Total	15,327 units

The City has more than fulfilled its SCAG fair share allocation for the previous period (1989-1994; 14,199 units). It is important to continue to provide adequate sites for the City's SCAG fair share allocation in the 1995--1999 planning period. SCAG has not yet published its Regional Housing Needs Assessment Plan, so City staff has made some estimates of what that allocation might be based on the City's growth over the past decade. These numbers are only estimates; the actual SCAG numbers may be different. (Refer to Tables H-14.)

Housing

Table H-14

Estimated Land Use 1995 - 1999

Assumed Annual Development 1995 - 1999

1994-1995	2,000 units
1995-1996	2,000 units
1996-1997	2,000 units
1997-1998	2,000 units
1998-1999	2,000 units
Total	10,000 units

Table H-15

Estimated Total Acres Required 1995-1999

Very low/low	225 acres
Moderate	150-300 acres
High	700-1400 acres
Total	1,075-1,925 acres

SCAG and Census Overpayment Estimates

Existing Need

In 1988, SCAG assumed that there were 14,443 households in Palmdale and that 5,503 or 38% of these households were lower income (household income below 80% of median income for Los Angeles County). SCAG estimated that 2,422 or 44% of these lower income households were paying more than 30% of their income for housing.

SCAG's estimate of households overpaying for shelter by tenure and income category¹⁶ was as follows (Table H-16):

Table H-16

**Households Overpaying for Shelter (SCAG)
Renters**

<u>Income Category</u>	<u>Number</u>	<u>Percent</u>
Very low income	1,219	69.3%
Low income	540	30.7%
Total Renters	1,758	100%

Owners

Very low income	419	63.1%
Low income	245	36.9%
Total Owners	664	100%

Housing

According to the 1990 Census, despite Palmdale's low rents, 90% of all Palmdale's very low income renter households and 40% of all low income renter households were paying 30% or more of household income for rent. These households comprise 70% of all the renter households with incomes at 80% or less of 1990 median income. Low income households overpaying for rent comprise 42.1% of all renter households (Table H-17).

Table H-17

Households Overpaying for Rent (1990 Census)

1990 Census Data on Households Overpaying for Shelter by Tenure and Income Category.

	<u>Renters</u>		<u>Owners</u>		
Percentage of Income	30-34%		35%+		
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Total</u>
Very low income	254	10.7%	1,872	79%	90%
Low income	227	16%	332	23%	40%
Total	481		2,159		2,640

Housing Costs Versus Ability to Pay

Homeownership and Income

Between 1989 and 1994, \$14,199 residential units were constructed in Palmdale. These units represent 136% of the City's fair share obligation which was allocated

between 1989 and 1994. In 1990, the median house price according to the census was \$149,700. However, since 1990, housing prices have declined: the median price of all single-family homes sold in Palmdale in 1995 was \$107,785, \$41,915 less than in 1990. To qualify for a loan at this purchase price, a family require have an annual income of approximately \$34,000. Table H-18 shows the qualifying income necessary to purchase homes at a range of prices in Palmdale and the proportion of the population living in Palmdale who can afford to purchase those homes.

Table H-19 and Exhibit H-8 summarize the price distribution of homes sold in Palmdale in 1995. The largest number of sales was in the price range between \$75,000 and \$100,000. But there were also a large percentage of units sold between the \$100,000 and \$125,000 range. The HCD-defined median income in 1995 was \$51,300 for a family of four, up \$9,300 from 1991. Households in the median income category could afford homes priced at the \$150,000 to \$175,000 range. More than half of the homes sold in 1995 were affordable to households earning approximately \$40,000 per year. Low income households, earning \$26,000 or less, could typically only afford to purchase homes priced at \$100,000 or less.

Rent levels and Affordability

According to the 1990 census, the median rent in Palmdale was \$580. Table H-20 and Exhibit H-9 show the distribution of all rents in the City in 1990. Table H-21 shows the price distribution of rents and the income levels necessary to afford these rents. A comparison of the proportion of households earning between 33% and 60% of median income shows that there were enough units in each price category to meet the needs of low income households. However, at the poverty level (30% or less), there were only 572 units to meet the needs of 2,568 households. While some of these households may be homeowners or mobile homeowners, most are likely to be renters whose incomes are so low that they need a housing subsidy. This helps explain why there are approximately 1,000 Palmdale households on the County's Section 8 waiting list.

Estimates of Need for Housing Subsidy

According to the Community Development Commission, in 1995 there were approximately 1,000 Palmdale residents on the County's Section 8 waiting list. The City's HUD-subsidized projects typically have long waiting lists.

Housing

TABLE H-18

HOUSING PRICE AND QUALIFYING INCOME
City of Palmdale 1995

<u>Sales Price</u>	<u>Down - Close</u>	<u>Monthly Payment</u>	<u>Qualifying Income</u>
\$50,000	\$3,000	\$489	\$18,400
75,000	4,200	720	26,400
100,000	5,700	945	34,000
125,000	7,300	1,170	39,650
150,000	8,500	1,344	48,800
175,000	13,750	1,492	54,500
200,000	17,000	1,720	58,000
250,000	31,000	1,996	67,200

Source: Stewart Title

TABLE H-19

**HOME SALES 1995
(1,349 Units)
City of Palmdale**

<u>Sales Price</u>	<u>Homes Sold</u>	<u>Percent</u>	<u>Median Sales Price for Palmdale</u>
\$0 to 15,000	5	0.4	
15,000 to 50,000	52	3.8	
50,000 to 75,000	191	14.2	
75,000 to 100,000	434	32.2	
100,000 to 125,000	326	24.2	\$107,785
125,000 to 150,000	204	15.1	
150,000 to 175,000	99	7.3	
175,000 to 200,000	20	1.5	
200,000 and over	18	1.3	

Total Units Sold in 1995 = 1,349

Average Price of New Home - \$132,341

Average Price of Older Home - \$99,409

Source: Stewart Title and Data-Quick

EXHIBIT H-8

Palmdale Home Sales 1995 (1,349 Units)

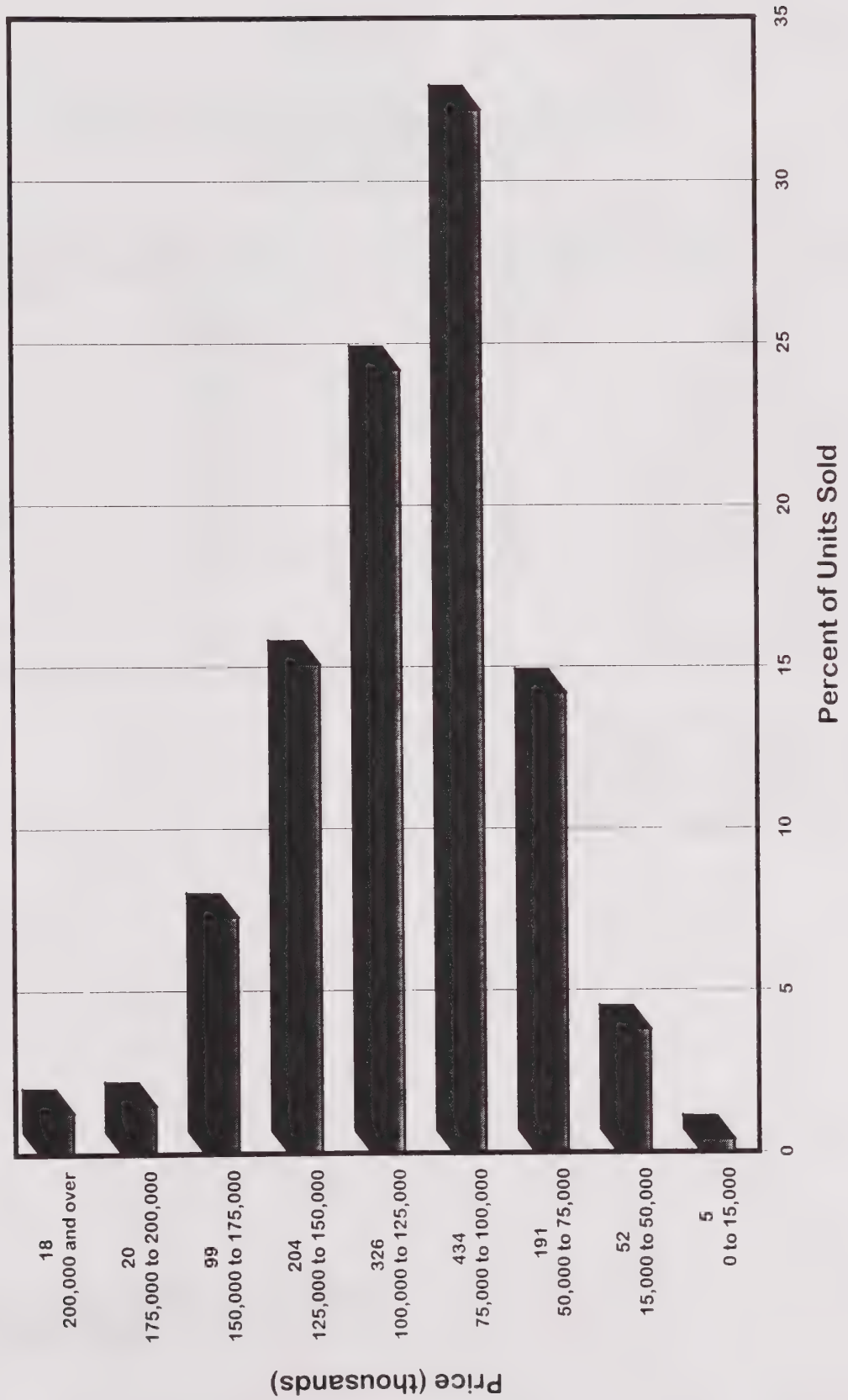


TABLE H-20

1990 RENT LEVELS AND AFFORDABILITY

<u>Income</u>	<u>% of Median Income</u>	<u>Rent Level</u>	<u>Number of Households</u>	<u>Number of Units</u>
\$11,250	27%	\$281	2,568	572
13,750	33%	343	428	744
16,250	39%	406	565	890
18,750	45%	468	558	861
21,250	50%	531	706	945
26,250	60%	656	649	12,191

EXHIBIT H-9 Palmdale Rent 1990

Housing

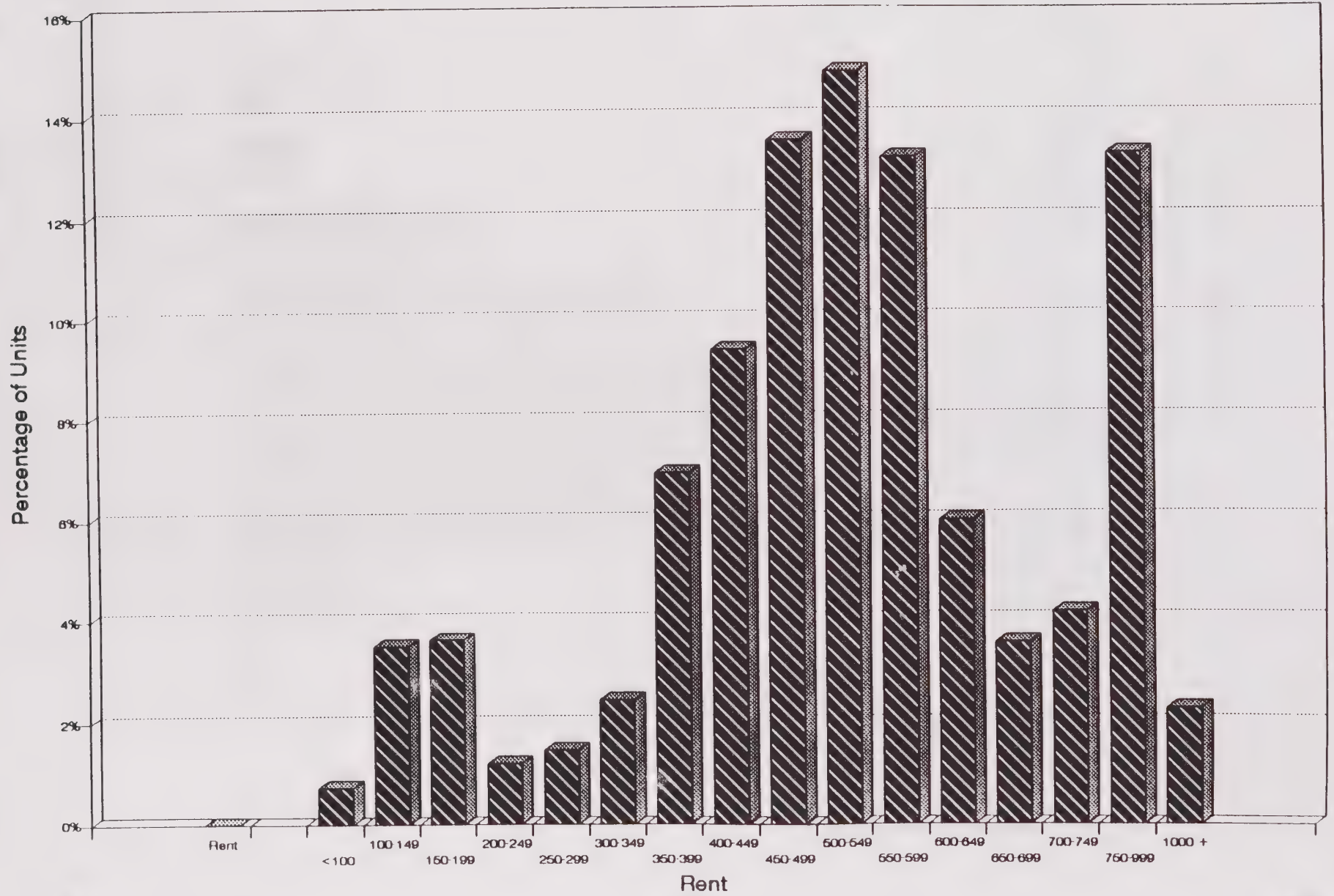


TABLE H-21
1990 RENT DISTRIBUTION
City of Palmdale

<u>Rent</u>	<u>Number of Units</u>	<u>Percent of Units</u>
< \$100	45	.7%
100-149	222	3.5%
150-199	229	3.6%
200-249	76	1.2%
250-299	93	1.5%
300-349	155	2.4%
350-359	441	6.9%
400-449	597	9.4%
450-499	891	13.5%
500-549	945	14.9%
550-599	839	13.2%
600-649	380	6.0%
650-699	226	3.6%
700-749	263	4.1%
750-999	845	13.3%
1,000+	144	2.3%

Housing

Housing Issues and Summary of Housing Need

Based on the 1990 census, despite the relatively low rents and high vacancy rates in Palmdale's rental and ownership housing stock, 3.6% of Palmdale's households are severely overcrowded and 42.1% of all Palmdale households are paying more than 35% of income for rent. There were 2,568 households earning 30% or less of median incomes but only 581 units which they could afford. In 1995, there were approximately 1,000 households on the Community Development Commission Section 8 waiting list. About 12% of the City's multi-family units and 7.5% of the single-family units need moderate rehabilitation.

In 1995, nearly all the units sold in Palmdale (approximately 99%), were affordable to households earning between 80% and 120% of HCD's defined, median income. Households earning between 50% and 80% of median income could afford 75% of the units sold, while households earning 50% of the median or below, could afford 18% of the units sold.

This data suggests that in 1995, housing was available for a wide range of income groups, including low income. This differs significantly from 1990 as only 11.8% of the units were sold to lower income groups. The City will continue to emphasize rehabilitating existing units and on improving the management of rental housing. This will offer an even wider selection of housing alternatives for all income groups. Additional subsidized units and Section 8 certificates and vouchers will continue to be utilized to assist the City's lowest income households. Despite high vacancies in rental housing, there are still households who are rent burdened, or living in overcrowded households. In addition, as the next section will discuss, there is also a problem of homelessness among families and individuals in the community.

SECTION 7: SPECIAL NEEDS

Elderly

Need

In 1990, there were 3,264 persons age 65 and over in Palmdale. There were 1,748 households with a householder age 65 and older. Of these households, 225, or 12.9%, lived below poverty. The mean income for households with retirement income was \$9,369. In response to a recent survey on senior housing needs conducted by the Antelope Valley Committee on Aging, 28% of respondents expressed a need for housing subsidy.

More than a third (37%) of the population age 65 and older in 1990 had a disability. Table H-22 shows the number of persons with disabilities by age and type of disability. This group of older persons may need their homes retrofitted for handicapped access, other repair services, and could need home care services as well. A total of 1,217 persons over 65 reported a disability in 1990.

Table H-22

Summary of Handicapped Persons Over 65

Handicapped Persons Over 65	65-74	75+
Mobility Limitation Only	497	443
Self-Care Limitation	68	18
Mobility and Self-Care Limitation	66	125

Older persons with lower incomes face a number of housing problems. Renter households must pay an increasing share of fixed incomes for housing as rent goes up. Renters often face the insecurity of threatened condominium conversions. Older homeowners may no longer be able to perform their own home repairs and may not be

Housing

able to afford to hire workers to make needed repairs. Women often rely on husbands for home upkeep; when widowed, these women may not be able to afford to hire outside help.

As people age, they may experience limitations in mobility or need help with self-care in order to remain independent. Adaptation of a house or apartment unit for handicapped accessibility can enable a person with mobility limitations to retain independence. Furthermore, many rental units are not well designed for the needs of older tenants. According to the Antelope Valley Committee on Aging, many units designated as senior units do not meet design minimum standards for senior units.

Security is also an important issue for older persons. Poorly managed rental projects without adequate security are dangerous for older persons who are often prevented from moving by lack of adequate financial resources.

Potential Solutions and Resources

The federal government provides financing for the development of senior housing in which tenants pay only 30% of income for rent. There is one 76-unit senior project with Section 8 financing in Palmdale. This project is not fully rented and may have management problems. Because it is one of the federally subsidized projects at-risk, an examination of management problems and an effort to improve management is warranted. Another senior housing project could be developed with finance from the federal Section 202 program.

In December 1995, the City, in partnership with Southern California Housing Corporation (a non-profit housing organization), approved a senior re-hab project, now known as the "Impressions" Senior Apartment Complex, located at 38045 10th Street East. This existing, 109 unit complex is currently being rehabilitated to suit the needs of seniors 55 years of age and above.

A handiworker program is now in place to provide grant-funded repairs to low income seniors and families. Services provided would include weatherization, repairs and installation of ramps and other equipment to make existing housing accessible for the disabled. Since the inception of the program, 12 grants have been issued.

The Zoning Ordinance, which was approved in 1994, establishes standards for units designated as senior units to ensure that these units are designed to meet the needs of older persons.

Handicapped

Need

The 1990 census identified persons age 16 to 64 with disabilities but does not provide a count of children with disabilities (Table H-23). The census identifies 3,688 persons age 16-64 and 1,217 persons 65 and older with a physical disability or self-care limitation. Some of these persons may be persons with developmental disabilities. Persons with mental or developmental disabilities as well as those with physical handicaps are protected by the 1991 Americans with Disabilities Act (Table H-23).

Table H-23

DISABLED PERSONS AGE 16-64

Mobility limitation only	2,532
Self care limitation	680
Mobility and self-care limitation	476

Low-income disabled persons may need a housing subsidy or may need assistance in adapting an existing unit to make in handicapped accessible.

Potential Solutions and Resources

The City of Palmdale continues to implement the handiworker program. This program provides grants to retrofit existing units for handicapped access. The City also has a program in place to educate the community on the provisions of the 1991 Americans with Disabilities Act. The City will cooperate with organizations developing special needs housing to support independent living.

Housing

Large Families

Need

Average household size in Palmdale is higher than that countywide; Palmdale is a city of young families. According to the Department of Finance, average household size in 1995 was 3.345 persons per household. In 1990, the census found that 5,464 units, 22.3% of all housing units, had four or more bedrooms while only 3,847 households had five or more persons. Most (82%) of the four and five bedroom units were owner occupied; only 18% were rental units. These rental units did not provide enough four and five bedroom units to meet the needs of households with five or more members. There were only 301 rental units with four or more bedrooms while there were 1,048 households with five or more persons. This indicates a need for additional large rental units to serve large families. The proportion of overcrowding measured by the census is a good indication of the fit between a community's housing and its households; in 1990 9.1% of Palmdale's households were overcrowded.

Potential Solutions and Resources

The State Rental Housing Construction Program and the committee that allocates state and federal tax credits both give priority to large-family developments (units with three or more bedrooms). Under programs proposed in the Housing Element, developers could purchase existing buildings with vacant units and reconfigure the units to provide more bedrooms.

Female-Headed Households

Need

According to the census in 1990, there were 2,094 female headed households. These households comprised 10% of all Palmdale households and 11.8% of all family households. Seventy-nine percent of these households had children under 18. Among female headed households, 36% lived in poverty in 1990. The situation was worse for female-headed households with children. In Palmdale in 1990, 760 households (46%) of all female-headed households with children lived in poverty. In sharp contrast with

the female-headed households, only 8% of all Palmdale households lived below poverty in 1990.

Despite a much higher median income in Palmdale in 1990 than in the County as a whole, a higher percentage of female-headed households in Palmdale were below poverty than in the County. In 1990, 26% of all female-headed households in the County were below poverty and 37% of female-headed households with children lived below poverty.

On average, female-headed households earn only 65 cents for every dollar paid to men. In female-headed households with children, child support allowances are often not paid, or, if the support payments are made, they do not equal the actual costs of child support. Furthermore, women with young children may not have adequate job skills and may, therefore, have to live on the minimal support provided by Aid to Families with Dependent Children.

In order to combat poverty, female-headed households with children need a variety of assistance that may include subsidized housing, child-care, education, job-training, parenting education, micro-enterprise loans and other programs. Stable and decent housing is an essential basis for any effort to assist families to escape from poverty.

Female-headed households with children are likely to need assistance with both housing and child care. Most of these households cannot afford to pay even the lowest rents available in Palmdale. The few subsidized family projects in the City have long waiting lists. In 1995, there are approximately 1,000 Palmdale households on the County's Section 8 waiting list.

Potential Solutions and Resources

Conditions in Palmdale's housing stock provide opportunities for Palmdale's female-headed households. Vacancy rates are high, more than 15% in multi-family rental housing in 1990. Rents are relatively low; 37% of all units rented for \$525 or less in 1990.

In Palmdale, 180 households have Section 8 certificates or vouchers. Most of these are family households. The City has a high vacancy rate and many landlords are willing to accept Section 8 certificates or vouchers, but there are very few certificates available.

Housing

There are about 85,000 households on the County's Section 8 waiting list; approximately 1,000 of these are Palmdale households. There are three federally subsidized housing developments with family units; all have waiting lists of about one year.

The City has prepared a Preservation Amendment to address the preservation of existing units with federal subsidies, which is included as Section 9 of this Housing Element. The City will examine the feasibility of providing additional very low income units through rehabilitation of existing housing. Funds from local redevelopment, federal tax credits and the County's HOME program could be used for such rehabilitation.

A comprehensive child care facility has been proposed for the City by a nonprofit provider, in order to provide additional support to female heads of households who must work to support their families.

Homeless Persons

Need

Los Angeles County is in the midst of a profound housing crisis; every year there are more and more homeless people. The Shelter Partnership estimates that nearly 200,000 people in the County were homeless at some time during 1995.¹⁷ Rising unemployment, high housing costs, high unemployment, inadequate skills, mental illness, and substance abuse all contribute to homelessness. These difficulties are aggravated by drastic reductions in social programs and mental health services. Estimates of homeless families and individuals tend to underestimate homelessness because they are based on applications for assistance and do not estimate those who do not seek help.

Estimate of Homeless Families

Data provided by the Los Angeles County Department of Social Services¹⁸ (DPSS) show an average of 80 applications monthly for family homeless assistance at the Lancaster DPSS office. Research performed by DPSS and the Shelter Partnership¹⁹

has found that about 35% of these applications are duplicate applications for move-in assistance; so every month 52 unduplicated Antelope Valley families apply for homeless assistance. An examination of the DPSS data also found an average of 3.00 persons per family. So, in 1995, there were at least 674 families with 1,872 family members who became homeless during the course of the year. The number of the families resident in Palmdale at the time of their application could not be determined from the data provided. The City is developing a method of estimating the number of homeless Palmdale families.

Estimate of Homeless Individuals

In 1995, the Lancaster office of DPSS²⁰ received an average of 260 applications for emergency vouchers from general relief applicants and approved the applications of 203 individuals. These figures indicate that over the course of a year there are between 2,436 and 3,120 homeless individuals in the Antelope Valley. A method of estimating the number of these applicants who are Palmdale residents is being developed.

During 1995, the homeless shelter in Lancaster took in 398 residents between December and January. In addition, during this same period, 64 families were placed in hotels under the shelter's motel voucher program.

Potential Solutions and Resources

The City of Palmdale provides administrative funding for South Antelope Valley Emergency Services (SAVES), a homeless service and referral program. SAVES provides motel vouchers for homeless families and individuals, refers clients to the homeless shelter in Lancaster when there are openings and provides food baskets; utility assistance; and bus fare as needed. In addition to City funding, SAVES receives funds from FEMA, the Community Development Block Grant program, and the County of Los Angeles Cold Wet Weather program. In 1995, SAVES vouchers provided 3,276 shelter nights for 1,557 persons (this is not an unduplicated count.) In 1995, SAVES provided 528,000 meals to needy recipients.

SAVES participates in the Antelope Valley Interagency Council. The council is comprised of the area's social service organizations who meet regularly with the

Housing

Sheriff's Office, DPSS, the regional centers and other agencies to coordinate the provision of shelter, food, job training, medical care and other necessary services.²¹

The Lancaster office of the Los Angeles County Department of Social Services provides assistance to homeless families who are eligible for or are recipients of Aid to Families with Dependent Children. Homeless families may receive motel vouchers for up to 30 days under this program. Eligible families may also obtain move-in expenses for permanent housing. Families can only apply for this program once every two years.

The Lancaster Community Shelter operated by Catholic charities is the only homeless shelter in the Antelope Valley. The shelter has two family units and two dorms for each sex, accommodating a total of 42 people. In the winter, additional cots are set up in the shelter dining room to accommodate up to 142 people. In addition to food and housing, the shelter provides case management, job counseling and life skills workshops. Residents are permitted to stay up to seven months. Shelter operators estimate that they need 40 family units during the summer months and an additional 100 family units during the winter. The shelter program can provide Section 8 certificates for permanent housing to eligible families.

Farm Workers

In the 1990 census, 136 households reported farm employment income. This income may have come from orchards located further east in the Littlerock/Pearblossom and from farming located near Palmdale's airport. There is no indication of whether these households were farm owners or farm workers. Palmdale is located in the desert; farming represents a very small part of the local economy.

Potential Solutions and Resources

To the extent that there are farm workers in Palmdale, proposed programs to increase the number of subsidized units in the community will address their needs. Farm workers may also apply for Section 8 housing assistance; the County's Section 8 waiting list is always open, although it takes a long time to receive a certificate.

Summary of Special Housing Needs

In 1990, 12.9% of 1,748 households headed by a person over 65 lived below poverty. More than one-third of the population over 65 in 1990 had a mobility or self-care disability. An additional 3,688 persons age 16-64 had a disability. The available census data did not provide information on the number of children with disabilities. In 1990, the City had more renter families with five or more persons than rental units with four or more bedrooms and 9.1% of the community's households were overcrowded. There were 2,094 female households, 10% of all Palmdale households. In 1990, 36% of all female-headed households and 46% of female-headed households with children lived in poverty. Homelessness is also a problem in the Antelope Valley. In 1995, the Department of Public Social Services reported that, last year, an estimated 624 families with 1,872 family members were homeless at some time during the year. Homeless individuals during the year were estimated at between 2,436 and 3,120. The City will conduct a study to determine how many of these families and individuals are Palmdale residents. Finally, in 1990, 136 households reported farm income.

SECTION 8: ADEQUATE SITES AND SERVICES

Land Use

Table H-24 shows the planned distribution of residential and commercial land uses in Palmdale over the next 20 years. Vacant sites in the City will accommodate a total of 52,994 additional units, which include 41,802 single-family and 11,192 multi-family units. Including existing units (35,780 as of 1/1/95), the total housing stock at build-out is expected to be 88,174 units.

Within the Residential Land Use designations as shown in the Land Use Map, at build-out, 23% of the residential units will be at densities between 6.1 and 16 units per acre; 62% will be at densities between 3.1 - 6 units per acre, and the remaining 15% will be at densities ranging from 0 and 2 dwelling units per acre.

Sites Available for Housing Development

Table H-25 shows the vacant sites available for residential development in the City during the life of the General Plan. Since 1989, 15,327 new units have been constructed in the City. This number includes units constructed in 1995. With these units, the City has exceeded its housing obligation under the current Regional Housing Needs Allocation. If economic conditions improve and there is a demand for more units, the City's residentially zoned land can accommodate more units. Two large multi-year development projects were approved in 1992 and 1993. The Ritter Ranch Specific Plan projects 7,200 units: 5,169 single-family, 1,189 condominiums and 842 multi-family units; City Ranch Specific Plan projects 5,200 units: 3,253 single-family units, 1,634 condominiums, and 313 multi-family units.

Housing

Table H-24

**Land Use Zoning Acreages and Residential Densities
1995**

General Plan Area

Residential Designation Land Use/Zoning Designation	Estimated # of Units Constructed	Vacant Land/Acres	Avg. Density x Vacant Land/# of Units	Estimated # of Units at Build- out
Equestrian Res. (1 du/2.5 acre)/A-1-2.5	1,110	9,928	9,928	11,038
Low Density Res. (1 du/acre)/R-1-1				
SFR-1 (0-2 du/acre)/R-1-1, R-1-20,000)	1,117	406	1,218	2,335
SFR-2 (0-3 du/acre)/R-1- 10,000 & R-1-15,000				
SFR-3 (3.1-6 du/acre)/R-1- 7,000	24,207	7,084	30,656	54,863
MR (10.1-16 du/acre)/R-2	1,214	318	4,150	5,364
MFR (6.1-16 du/acre)/R-3	7,532	773	7,042	14,574
TOTALS	35,180	18,509	52,994	88,174

Development of individual infill sites is rare in Palmdale. Recently, residential development takes place in subdivisions of from 10 to several hundred units. Multi-family units at densities up to 16 units an acre may be developed by right. However, with vacancies ranging between 10% and 15% at 12.63%, there have been only a few proposals to build multi-family housing in the past several years. These developments have been relatively small in scope and size. New single-family housing subdivisions in Palmdale are advertising prices as low as \$97,000-\$100,000. At build-out, residentially zoned land in the City will support the development of an additional 57,394 units.

Infrastructure and Services to Support Residential Development

While much of Palmdale's residentially zoned land lies in areas that are still unimproved, there are a number of sites suitable for subdivision that are near sewer and water mains as well as electrical and gas hook ups. Exhibits H-10, H-11 and H-12 show the general layout of the gas and power transmission lines and the service areas of the City's many water companies.

The City has 20 water districts and three sewer districts. However, gas and electricity are provided by sole purveyors: gas is provided by the Gas Company and electricity by Southern California Edison. Trash service is provided by a franchise private hauler through a franchise agreement with the City. The private hauler (Palmdale Disposal Co.) and other local centers, provide municipal recycling for the City.








The City does not currently maintain maps at the level of individual streets showing the installation of water and power. Developers can obtain this information from the power companies. The City does have maps showing the location of main sewer trunk lines.

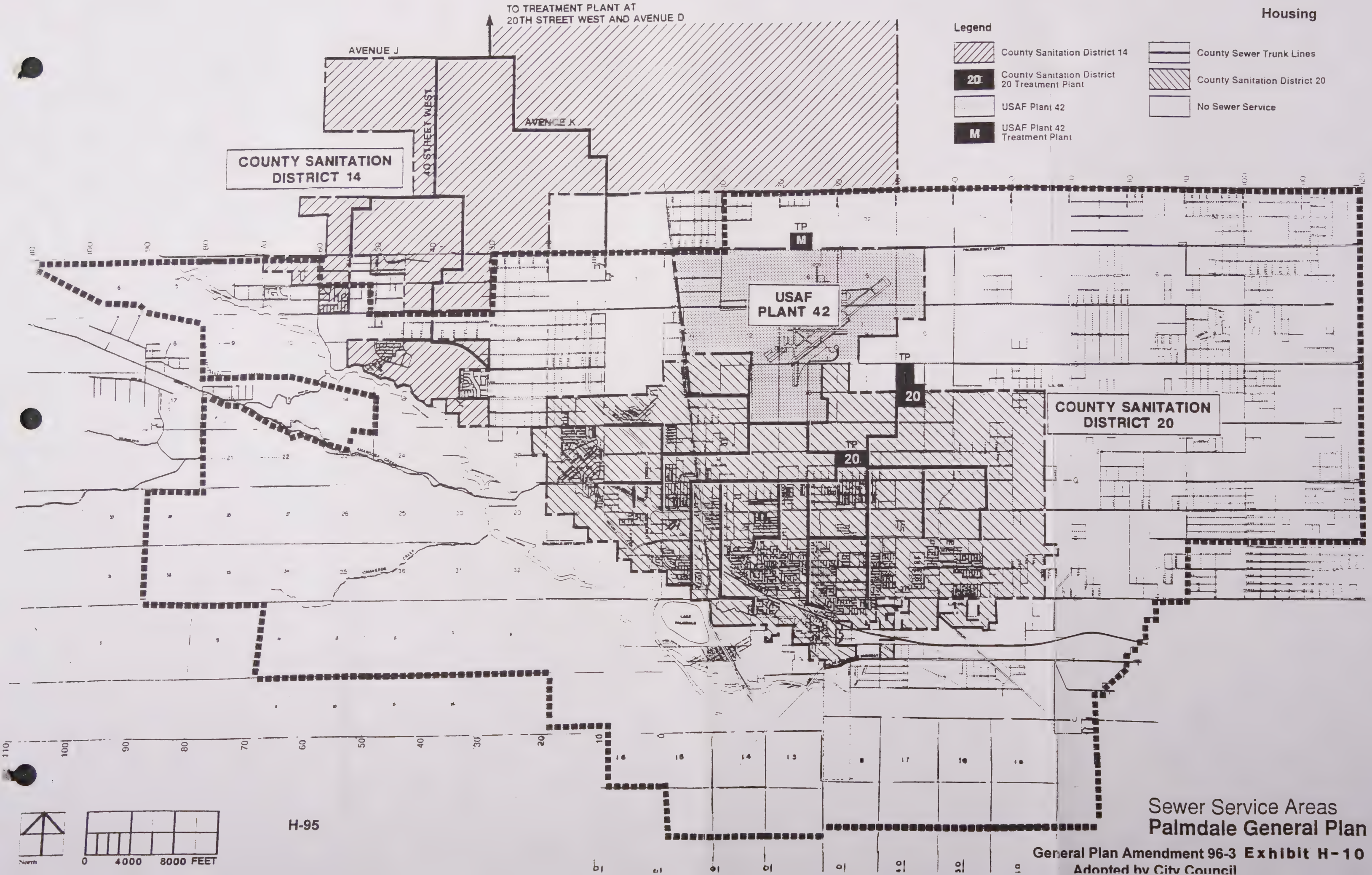
Most of the central core area where development has been occurring has water, sewer, electricity and gas mains at a reasonable distance. In the areas outside the utilities districts, the lack of infrastructure makes development more costly in the near term. In the outlying districts that are within the City's Planning Area but outside the City, building sites have power but nothing else. Houses have septic tanks, water is trucked in and stored in tanks, and there are no paved roads. When these areas are annexed, the City's policies on public services require that any new development must pay for the installation of infrastructure needed to support itself.

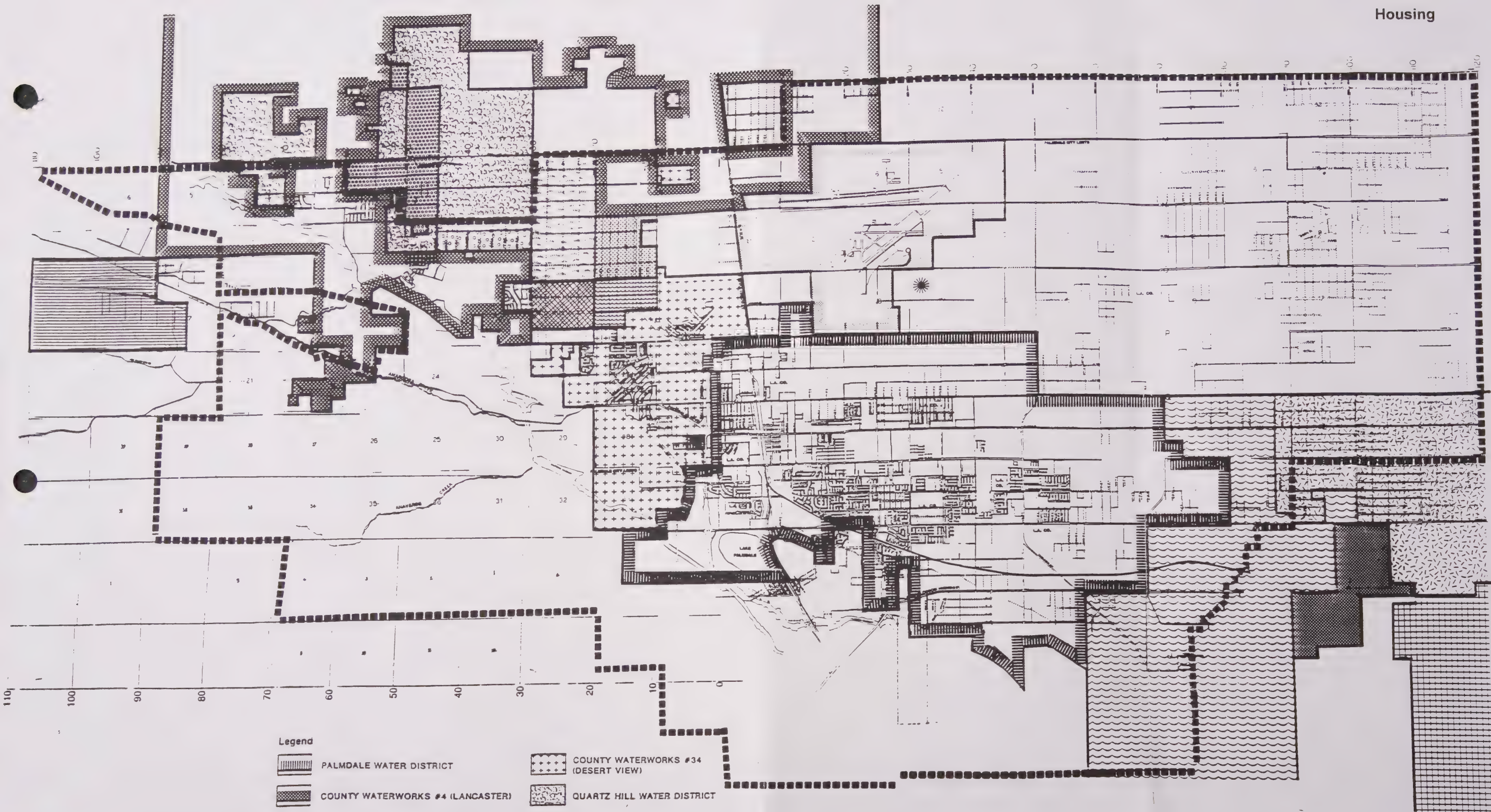
Housing

Sewer availability imposes constraints on development of industrial land on the far east side of Palmdale. Several square miles with land zoned for residential or industrial use cannot be developed until a new sewage treatment plant is installed. There is no way to run lines to the existing treatment plant because the Littlerock Wash separates the area from the plant. The residential parcels can be individually developed with septic systems, subject to requirements of the Regional Water Quality Control Board; however, no commercial or industrial land may be developed without connection to a public sanitary sewer system.

Legend

- | | | | |
|---|---|---|-------------------------------|
|  | County Sanitation District 14 |  | County Sewer Trunk Lines |
|  | County Sanitation District 20 Treatment Plant |  | County Sanitation District 20 |
|  | USAF Plant 42 |  | No Sewer Service |
|  | USAF Plant 42 Treatment Plant | | |





Legend

PALMDALE WATER DISTRICT

COUNTY WATERWORKS #4 (LANCASTER)

PALM RANCH IRRIGATION DISTRICT

USAF PLANT 42

LITTLE ROCK CREEK IRRIGATION DISTRICT

COUNTY WATERWORKS #33 (SUN VILLAGE)

COUNTY WATERWORKS #27 (LITTLEROCK)

COUNTY WATERWORKS #34 (DESERT VIEW)

QUARTZ HILL WATER DISTRICT

WHITE FENCE FARMS WATER COMPANY

SUNNYSIDE FARMS WATER COMPANY

WESTSIDE PARK MUTUAL WATER COMPANY

EL DORADO WATER COMPANY

COUNTY WATERWORKS #24 (PEARLBLOSSOM)

LEONA VALLEY WATER DISTRICT

ROCKWELL INTERNATIONAL

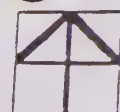
SHADOW ACRES MUTUAL WATER COMPANY

PRIVATE WATER SERVICE OR NO SERVICE

Service Areas
of Water Companies
Palmdale General Plan
Exhibit H-11

General Plan Amendment 96-3
Adopted by City Council

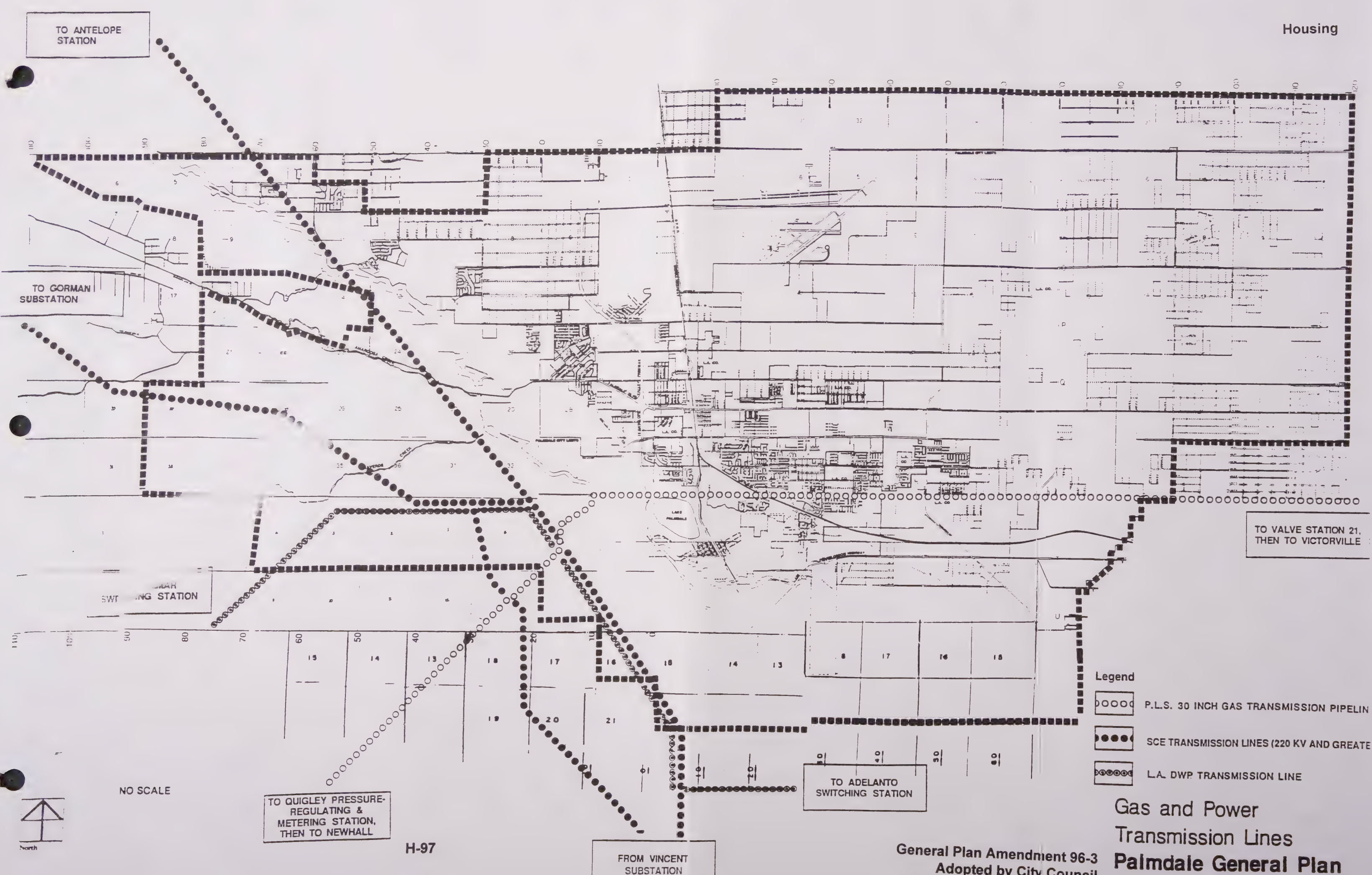
H-961



North



0 4000 8000 Feet



Summary of Sites and Services Available for Development

The City has designated land to accommodate 52,394 additional single and multi-family units in the City over 20 years. Table H-25 summarizes sites available in the current planning period. While much of Palmdale's residentially zoned land lies in areas that are still unimproved, there are a number of parcels suitable for subdivision that are near sewer and water mains as well as electrical and gas hook ups. There are three sewer companies and 20 water districts in the City. Gas and electricity are provided by the Gas Company and Southern California Edison. The City provides trash collection through a contract with a private firm (Palmdale Disposal Co.). Municipal recycling is available through Palmdale Disposal as well as through other local recycling centers. Developers are responsible for constructing roads within subdivisions and for improving adjacent arterials.

Housing

Table H-25

SITES AVAILABLE FOR HOUSING DEVELOPMENT

Palmdale General Plan Area/1995

	Single Family Units	Multi-Family Units	Total
Current Stock	26,434	8,746	35,180
Vacant Sites	17,418	11,192	
Potential Additional Units on Under- Developed Sites	500*	N/A	N/A
Total Build-Out*	68,236	19,938	88,174
Units Projected During 5-Year Planning Period	9,128	200	--

Source: City of Palmdale Planning Department 1995

*Second dwelling units and temporary dependent housing units may be constructed in areas where the lots are sufficiently large enough to accommodate these units. The City estimates that approximately 500 lots may be developed with second dwelling units or TDH units on under-developed sites by the time the City reaches build-out.

SECTION 9: PRESERVATION OF AT-RISK HOUSING UNITS

Section 65583(a)(8) of state housing element law requires all cities and counties to conduct an analysis of assisted housing developments in the jurisdiction that are eligible to change from low-income housing uses during the next ten years' subsidy contracts. The analysis must include an inventory of all such units, an estimate of the cost of preserving the housing or producing comparable new units, and the availability of nonprofit corporations capable of acquiring and operating these units. Possible financing sources for preservation or replacement must also be identified. Finally the analysis must state the community's goals, quantified objectives, policies and programs for housing preservation and production.

Period Covered by Analysis

The analysis covers the ten-year period between 1989 and 1999. Two separate five-year periods, 1989-1994 and 1995-1999 are identified. Calculations of preservation and replacement costs and resources are provided for each period.

I. INTRODUCTION TO THE PRESERVATION ISSUE

Prepayment

Two major loan programs provided by HUD in the 1970s, Section 221(D)(3) and Section 236, offered 40-year mortgages for low-income housing developments that could be paid-in-full (prepaid) at the end of 20 years. Once the owner prepaid the loan, the rent restrictions would end, and the low-income tenants would have to pay market rates for the units or find other housing.

As the dates for prepayment drew near, it became apparent that in market areas like Los Angeles County where market rents were higher than those paid by HUD, many owners were going to prepay, and thousands of low-income households would lose their homes. A moratorium on prepayment was imposed in 1987 and in 1990, Congress enacted the Low Income Housing Preservation and Renter Homeownership Act (LIHPHA). This act makes it virtually impossible for an owner to prepay in areas where there is a great need for affordable housing. Instead, the act creates incentives for owners to continue to operate subsidized units, or if owners should choose not to

Housing

continue, the act provides financing to enable tenant associations and other nonprofit organizations to purchase the building. The act requires the owner to notify HUD, the tenants, and State and local government if it intends to change the status of the project. Other provisions require that owners may sell only to priority buyers (residents associations or other non-profits) for the first 12 months after offering a project for sale.

Section 236

The Section 236 program provided an interest-rate subsidy (loan management set-aside) to developers of newly constructed or rehabilitated housing financed with FHA-insured mortgages. Interest rates on the mortgages were set at the prevailing market rate but HUD paid the lenders a subsidy, called an interest reduction payment. The interest reduction payment reduced the owner's mortgage payment to the amount it would have been if the interest rate had been 1 percent. Originally the rents for these projects were set at 80% of median, too high for most poor people. In order to lower tenant rents, HUD added a rental assistance program, project-based Section 8, which pays the owner a HUD-established "contract" rent. Under this program, the tenant's rent cannot exceed 30% of household income. So most Section 236 projects have two different subsidies, an FHA-insured mortgage and a Section 8 contract, each with different expiration dates.

Section 221(D)(4)

In addition to the Section 236 and 221(D)(3) loans, HUD also provided an FHA-insured market-rate interest loan with a project-based Section 8 contract. There are no long-term rent restrictions in the terms of the 221(D)(4) loans; the rents are made affordable to low income tenants by the Section 8 contract. If the owner decides to "opt out" of the contract and convert to market rates, the tenants will receive Section 8 vouchers from the County Housing Authority but will have to find new units. Palmdale has two Section 221(D)(4) projects, both with Section 8 contract renewal dates in the mid-1990s. The owners are required to provide both HUD and the tenants a year's notice if they intend to "opt-out" of the Section 8 contract and convert the project to market rates. However, in Palmdale, where market rates are below the contract rents in these buildings such an action is highly unlikely.

Section 8

Section 8 project-based assistance is a federal subsidy program that pays owners of rental housing the difference between 30% of a tenant's income and the contract or fair market rent for that area and unit size. The rents paid under Section 8 contracts vary from project to project depending upon the amount of loan subsidy the project received. HUD adjusts these rent payments annually to compensate for increases in operating expenses. Both the 236 and the 221(D)(4) projects in Palmdale have Section 8 contracts. The eligibility criteria for Section 8 assistance have changed over time; when the program first began, households earning up to 80% of median income could qualify for Section 8 assistance. Now only households earning 50% or less of median income are eligible. When an assisted household's income rises over 50% of median, the household is still required to pay 30% of income for rent, increasing that household's share of the contract or fair market rent.

Section 8 Opt Outs

While most of the loan programs had 40-year terms allowing prepayment at 20 years, the Section 8 contracts are for varying periods. The usual contract is for a period of 15 years renewable at five-year intervals. At any one of these five-year intervals, the owner may decide not to renew the commitment, that is, to "opt-out" of the contract. When the project has an underlying loan subsidy such as the 236 program, the tenant rent remains unchanged. But for projects with market-rate finance like the 221(D)(4) projects, if the owner opts out of Section 8, the tenant is left without a rent subsidy. These projects are not subject to LIHPRHA.

Provisions of the Low-Income Housing Preservation and Renter Ownership Act

The Low-Income Housing Preservation and Renter Ownership Act of 1990 imposes restrictions on prepayment and provides incentives to owners who elect to remain in the program. These incentives are also available to purchasers of the buildings, should the current owners decide to sell. Priority is given to purchases by an association of building tenants or other nonprofit organizations. During the first 12 months after the project is put up for sale, the owner may sell only to these "priority purchasers." If no priority purchaser can be found, then the project can be sold to any buyer who offers an acceptable price. This buyer must maintain the affordability restrictions. Only if no

Housing

purchaser can be found will the owner be permitted to prepay. Therefore, as the prepayment date approaches, the owner has three choices: to continue in the program with no changes, to continue to participate in the program in exchange for increased federal financial benefits (stay-in) or to sell. The Low-Income Housing Preservation and Renter Ownership Act of 1990 covers projects financed under Section 236 and 221(D)(3). The Section 221(D)(4) projects are not subject to the provisions of the act.

Owner Incentives to Stay In

Under LIHPRHA, HUD offers incentives to owners who elect to stay in the program. Once the owner files a notice of intent, a project appraisal will be conducted to determine the preservation value of the project. The owner is entitled to a package of incentives that yield an 8% return on this preservation value. Incentives include increases in tenant rents, increases in Section 8 contract rents, access to additional federal loans including an equity take-out loan.

Resident Participation

LIHPRHA gives a central role to residents in preservation. If a project is offered for sale, during the first 12 months, it can be sold only to a resident association or a community-based nonprofit organization. Tenants must receive copies of the required notices filed by the owner. While residents have no formal role to play in the appraisal, there is a procedure that permits tenants to submit lists of necessary maintenance and repair.

Residents are well advised to form resident associations early on, even before receiving a notice of intent, in order to negotiate on their own behalf. If the owner decides to sell, the choices open to the resident association are to purchase the project itself as a homeownership or rental project or to choose a community-based nonprofit purchase the project and operate it with resident participation. If the owner decides to stay in, the resident council will want to make sure that the agreement makes adequate provision for repair and restoration.

Once the notice of intent has been filed, HUD will conduct an appraisal to determine the project's "preservation value." A capital needs assessment to determine the cost of required rehabilitation will be included in the appraisal process. Tenants can and

should participate in this process by providing appraisers with a list of all necessary maintenance and repair work. HUD uses the appraisal to calculate the "preservation value" and preservation rents of the projects. The owner then files a plan of action describing plans to stay-in or to sell the project. Residents must be given a copy of the plan of action. If HUD approves the plan of action, the owner either goes on managing the projects with the new package of incentives or offers the project for sale to priority purchasers for 12 months. If the project has not sold at the end of 12 months, any buyer who is willing to pay the price set by HUD and to maintain the affordability restrictions may purchase. If there is no purchaser after 15 months, the owner may prepay the Section 236 loan.

Resident Protection and Resident Risks

LIHPRHA protects tenants by requiring that HUD must provide Section 8 assistance to any tenants below 80% of median income.

Locally Subsidized Housing Programs

Units subsidized by local programs, such as mortgage revenue bonds, are also at risk. These programs often imposed rent restrictions for a short period, because the bond credit enhancers aren't willing to back the bonds for more than ten to fifteen years. Units subsidized under this program before 1986 were required to be affordable to households of either low or moderate income. Cities can refund these bonds upon expiration in order to extend rent restrictions, but owners are not required to cooperate. In planning to preserve affordability in these units, it is important to know how many lower income households will be affected, since compliance monitors do not recertify household income annually but only check to see whether the rent levels meet program requirements.

II. INVENTORY OF UNITS AT RISK OF LOSING USE RESTRICTIONS

The City of Palmdale has identified twelve multi-family rental developments in the City with federal or local subsidies. Eight of these developments have federal subsidies; the other four were financed with locally issued mortgage revenue bonds. The four projects with federal subsidies received assistance under two different programs, Section 236(J)(1) and Section 221(D)(4). A list of these projects appears in Table H-26.

Housing

Assessment of Risk

The projects listed above have different types of subsidies, are subject to different regulations, have different affordability levels, and are at different degrees of risk of converting to market rate rents.

Section 236

The two Section 236 projects, Palmdale Apartments and Palmdalia Apartments, have two different subsidies, Section 236 FHA-insured loans and Section 8 project-based assistance. The subsidy terms and renewal dates are different for each subsidy program. The prepayment and “opt-out” dates for both projects were extended in 1992.

Palmdale Apartments

The Section 236 loan on the Palmdale Apartments, dated December 29, 1971, was for the amount of \$824,700 at an interest rate of 9%. The loan will become eligible for prepayment on December 29, 2011. Although tenants in the Palmdale Apartments are also protected by the Section 8 project-based assistance contract, this contract will soon be up for renewal, at which time the owner could opt-out of the contract. This is very unlikely, however, because the rents would still be restricted by the terms of the underlying Section 236 loan. Nevertheless, the tenants should receive assistance prior to the prepayment deadline, in forming a resident association so that they can participate in the negotiations between the owner and HUD over the incentives the owner will receive for staying in the program.

Although the opt-out dates for the Palmdale Apartments and Palmdalia Apartments have been extended past the ten year analysis period, and preservation costs will most likely not be needed, costs have been provided in the event an owner opts-out prior to the expiration of the extension date. See Table H-27 and H-28 for details.

Housing

TABLE H-26

INVENTORY OF LOCALLY SUBSIDIZED UNITS AT RISK OF LOSING USE RESTRICTIONS

Project Name Project Address	Owner Name Owner Address	Subsidy Type	Unit Type	Total Low/Mod Units Income	Bond Expiration Date
Maryott Apartments 38301 11 th Street East Palmdale, CA 93550	So. Ca. Housing Corp. 8265 Aspen Avenue Suite 100 Rancho Cucamonga, CA 91730	Local Mortgage Revenue Bond 80/20	Family	100 20	1992; owner defaulted on loan. City raised in FHA certificates.
Manzanita Villas Apts. 570 Knollview Court Palmdale, CA 93551	Griffen Development Co. 24005 Ventura Blvd. Calabasas, CA 91302	Local Mortgage Revenue Bond	Family	144 29	2007
Carmel Apartments 38722 11 th Street East Palmdale, CA 93550	Investment Concepts, Inc. 777 S. Main Street, #161 Orange, CA 92668	Local Mortgage Revenue Bond	Family	112 23	2023
Oasis 38300 30 th Street East Palmdale, CA 93550	Fannie Mae 135 N. Los Robles Ave. Suite 300 Pasadena, CA 91101	Local Mortgage Revenue Bond	Family	336 67	2025

Housing

TABLE H-26

INVENTORY OF FEDERALLY SUBSIDIZED UNITS AT RISK OF LOSING USE RESTRICTIONS

Project Name Project Address	Owner Name Owner Address	Subsidy Type	Unit Type	Number of Units By Subsidy Type		Subsidy	Termination
				FHA Section 8		FHA	Section 8
Palmdale Apartments 38002 15 th Street East Palmdale, CA 93550	Palmdale Park Part. 11812 San Vicente Los Angeles, CA 90049	Section 236(J)(1) Section 8	Family	58	58	29 Dec 91 (+20) Yr. 2011	15 Nov 93 (+5) Yr. 1998
Palmdalia Apartments 38040 11 th Street East Palmdale, CA 93550	Palmdalia Ltd. 64 Brookhollow Drive Santa Ana, CA 92705	Section 236(J)(1) Section 8	Family Elderly Family	64	3 9 52	17 Jul 94 (+20) 17 Jul 2014	15 Oct 92 (+5) Yr. 1997
Palmdale Gardens 38601 10 th Street East Palmdale, CA 93550	Ranbir, Sahni-LDP 611 Anton 730 Costa Mesa, CA 92626	Section 221(D)(3) Section 8	WAH (Elderly)	76	76		22 Jun 94 (+5) Yr. 1999
Palmdale East Q 100 E. Avenue Q Palmdale, CA 93550	Goldrich & Kest 5150 Overland Avenue Culver City, CA 90230	Section 221(D)(4) Section 8	Family	90	90		27 Feb 95 (+5%) Yr. 2000
Queens Twelve 37979 35 th Street East Palmdale, CA 93550	Goldrich & Kest 5150 Overland Avenue Culver City, CA 90230	Section 221(D)(4)	Elderly		8		22 Sep 01 Yr. 2001
East 35 th Street Apts. 37929 35 th Street East Palmdale, CA 93550	Goldrich & Kest 5150 Overland Avenue Culver City, CA 90230	Section 221(D)(4)	Elderly		48		29 Jul 03 Yr. 2003
Palmdale Desert Club Apts. 37902 N. 20 th Street Palmdale, CA 93550	Palmdale Desert 303 S. Los Angeles, CA 90066	Section 221(D)(4)	Family Elderly	80	80		29 Sep 03 Yr. 2003
The Village Gardens	Ranbirs Sanni	Section 221(D)(4)	Family		80		19 Dec 04 Yr. 2004

Palmdalia Apartments

The Section 236 loan on the Palmdalia Apartments, which received a final endorsement on July 17, 1974, was in the amount of \$808,000 at an interest rate of 7%. The Palmdalia Apartments, with nine senior and 55 family units, has one Section 236 loan but two Section 8 contracts. The earliest date at which the owner could prepay is July 17, 2014.

It is not very likely that the owner will opt-out of the Section 8 contracts because the rents would still be restricted by the underlying Section 236 loan. Prepayment is not likely to be an option since the conditions under which HUD would permit prepayment, a market in which there is a sufficient supply of affordable housing cannot be met in California. However, it is a little more difficult to predict whether the owner will be interested in remaining in the program or in selling. The incentives offered by LIHPHRA should give firms in the property management business every reason to stay in the program. According to City staff and local realtors, property values in Palmdale have declined considerably over the past several years, a circumstance that might make an early sale less attractive.

Section 221(D)(4)

The six projects subsidized under 221(D)(4), Palmdale Gardens, Palmdale East Q Queens Twelve, East 35th Street Apartment, Palmdale Desert Club Apartments, and The Village Gardens are not subject to LIHPHRA because the FHA-insured mortgages have market interest rates. These projects have Section 8 contract rents that are much higher than those in the 236 units and much higher than median market rents in the City of Palmdale. These high market rents should make it very attractive to the owners to remain in the Section 8 program. According to HUD staff, in the very unlikely event that the owners did opt-out of the Section 8 contract, the low-income tenants would all be able to obtain Section 8 vouchers from a special program operated by the County Housing Authority.

Palmdale Gardens/Queens Twelve/East 35th Street Apartments

The above-referenced Section 221(D)(4) senior projects totaling offer Section 8 contract rents that are at or above market rate rents in Palmdale. Their contracts are either

Housing

newly established or have been renewed to a new deadline. As such, Palmdale Garden will expire in 1999; Queens Twelve will expire in 2001 and East 35th Street Apartments will expire in 2003. It is very important that the affordability of these senior units be preserved so that the residents can remain in place. Seniors often suffer adverse health effects when displaced. Low income seniors usually have fixed resources whose buying power gradually diminishes over the years. They are particularly ill-equipped to absorb rent increases resulting from loss of rent subsidy.

Palmdale Desert Club Apartments/The Village Gardens/ East Avenue Q

The contracts for the above-referenced Section 221(D)(4) family/senior projects are either newly established or have been extended to a new deadline. As such, Palmdale East Q will expire in 2000; the Village Gardens will expire in 2004; and the Palmdale Desert Club Apartments will expire in 2003.

Projects Financed with Mortgage Revenue Bonds

The terms of the mortgage revenue bond financing for the Maryott Apartments, Manzanita Villas, Carmel Apartments, and McAdam Park restrict rents of 20% of the units to rates affordable to low or moderate income households for ten years. The rent restrictions on the bond-financed projects expire in 1997-98, at which time the owners can raise the rents of the restricted units to market rates. At that time, there may be a difference between market and moderate rates; at present, market rents in all four of these projects are affordable to households earning 80% of median income. In the Carmel Apartments, McAdam Park, and Manzanita Villas most of the market rate units are even affordable to households at 60% of median income.

III. COST ANALYSIS OF PRESERVING OR REPLACING AT-RISK UNITS

There are several types of cost associated with preserving affordable housing in the City of Palmdale. These costs include the cost of educating tenants and assisting the formation of resident associations, predevelopment expenses, gap financing and some rehabilitation costs for purchases by resident associations or other nonprofit organizations.

A. Preservation Costs

Table H-27 summarizes preservation costs for the entire 10-year period of analysis.

Table H-27**Preservation Costs for 10-Year Analysis Period**

<u>Project Type</u>	<u>Number of Units</u>	<u>Total Cost</u>	<u>HUD/Other Cost</u>	<u>Local Cost</u>
Section 236	122	\$ 5,857,830	\$5,202,030	\$655,800
Section 221(D)(4)	382	\$12,376,645	\$11,667,046	\$618,832
Bond-Financed Units	138/692	\$23,000,000	\$23,000,000	\$300,000

Section 236

If the Palmdale Apartments and the Palmdalia Apartments were to be sold to a resident association or community nonprofit, the price or "preservation value" of each project would be set by HUD through an appraisal. The cost of rehabilitation necessary to restore the building to "original condition" would be included in the appraisal process. HUD would continue the initial loan, and provide a 95% acquisition loan as well as a rehabilitation loan. Rent subsidies would be set at a level that would ensure a positive cash flow to the building while maintaining affordability for the tenants.

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In order to purchase the project, the resident association or community nonprofit would need funds for predevelopment expenses and for gap financing. The funds would probably be in form of a deferred or residual receipts payment loan.

There are 122 units at risk in these two Section 236 projects. Total predevelopment costs would be \$195,200. Gap financing would be \$158,600 and rehabilitation \$4,715 would be \$575,211. Total local resources needed to preserve the 122 units of Section 236 housing at risk would be \$929,011.

The process for estimating these costs is described below:

Predevelopment Expenses

The California Housing Partnership, a corporation whose purpose is to provide training and technical assistance to Cities, non-profits and residents associations on units subject to prepayment, has estimated predevelopment costs for a typical project.

Table H-28

Preservation Costs for Section 236 (122 units)

	<u>HUD Costs</u>	<u>City Costs</u>	<u>Total</u>
95% HUD Loan	\$3,172,000	\$158,600	
Predevelopment Cost		\$195,200	
Gap		\$302,000	
Subtotal		\$655,800	
Total Preservation Cost		\$3,827,800	

<u>Predevelopment Expenses*</u> <u>Purchase and Rehabilitation</u>	<u>Per Unit</u>	<u>122 Units</u>
Physical Inspection	\$ 75	
Rehabilitation Write-up	150	
Permits/Fees	235	
FHA Application Fees	125	
Title/Escrow	15	
Tenant Organizing	300	
Organizational Costs	100	
Legal 200		
Financial Consultant	200	
Project Management	<u>200</u>	
	\$1,600	\$195,200

*Predevelopment expenses from California Housing Partnership Corporation, "Sample Predevelopment Budget", seminar materials, 1995-1996.

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Gap Finance

In addition to the predevelopment expenses estimated above, a nonprofit purchaser would have to obtain gap financing for the 5% of building value that HUD will not finance.

Purchase Price

A purchase price can be estimated by examining asking price for similar building in the City in 1995-1996; however, the actual purchase price of the building would be subject to determination through HUD's appraisal process in the year of the contemplated sale. Based on a recent purchase made by the Redevelopment Agency of a multi-family rental building in April 1996, the 109-unit project sold for a total of \$2,834,000 at \$26,000 per unit.

At this per unit cost the full purchase price for 122 units would be \$3,172,000. Gap financing of 5% would be \$158,600; predevelopment costs at \$1,600 per units would be \$195,200. An additional \$575,230 in rehabilitation costs is part of the estimate. The total cost to the City of preserving these units would \$5,857,830.

Rehabilitation Costs

HUD will finance a rehabilitation loan for projects subject to LIHPRHA. However, rehabilitation costs for older projects may exceed the limits set by HUD. Southern California Housing Inc. advises provision for an additional \$4,715 per unit in rehabilitation costs. Therefore, rehabilitation costs of \$4,715 per unit have been added to preservation costs of the two 236 projects. The total estimated rehabilitation cost is \$575,211.

Preservation Costs for Bond-Financed Projects

During the study period, use restrictions on four bond-financed projects will expire. These projects have a total of 692 units, of which 20% or 138 must be affordable to households of low or moderate income. Preserving the rent restrictions on the 138 "affordable" units would require refunding the mortgage revenue bonds. The outstanding amount due on these bonds as of 6/30/95 was \$25,600,000; about that

amount in new bonds would have to be sold to refinance the four projects and continue the use restrictions. The cost to the City of issuing these bonds would be approximately \$326,809.

Preservation Costs for Section 221(D)(4) Projects

It is very unlikely that the owners of the six Section 221(D)(4) projects will opt-out of their Section 8 contracts. Even if the owner wanted to sell, or was forced to sell because the project fell into default, the project is more valuable to a buyer with the Section 8 contract intact because it provides a rent subsidy that is well above median market rent in the City of Palmdale. If no buyer could be found for a defaulted project, and it was necessary to arrange a nonprofit acquisition of the project, the new owner could assume the HUD loan and pay for the acquisition out of project cash flow, once the project was fully occupied.

But if the owner wanted to opt-out of the Section 8 contract and sell the project, there is no way to require the owner to sell to the tenants or a community nonprofit. Therefore, preservation of these units is less a question of financing than of creating statutory disincentives to opt-outs such as an ordinance prohibiting condominium conversions until various conditions are met.

Table H-30

Preservation Costs for Section 221(D)(4) Projects

Acquisition Cost at \$26,000 per unit	\$9,958,000
Predevelopment cost for acquisition	612,800
Rehab cost at \$4,715 per unit	1,805,845
Total Preservation Cost	\$12,376,645

Housing

If the six 221(D)(4) projects have to be acquired, the market price in 1995-1996 to preserve the 382 units in these six projects would be \$12,376,645. Project finance would include a loan of \$7,954,052 supported by rents of \$489 per month, tax credit equity of \$3,712,994 and \$618,832 in gap finance from the City.

B. Replacement Costs

Table H-31 summarizes replacement costs for a five-year period. The basis for estimating replacement costs is described below.

Table H-31

Summary of Replacement Costs by Five-Year Period

Time Period	Total Units	Total Cost	Other Finance	Local Resources
1996-2001		\$5,857,830	\$5,202,030	\$655,800
1996-2001	382	\$12,376,645	\$11,667,046	\$618,832
221(D)(4)		\$4,831,079	\$4,504,270	\$326,809
80/20 Bond	138			

Land and Construction Cost Per Square Foot

All costs are in 1995-1996 dollars. The City's Department of Building and Safety estimates residential land costs at about \$.34 to \$1.00 per square foot. Estimates of soft costs vary. The BIA estimates soft costs at 40% to 50% of hard costs. The California Housing Partnership, which has published guidelines for estimating the cost

of preservation and replacement, advises the use of 15% of hard costs to estimate soft costs. A model tax credit spreadsheet provided by the California Equity Fund shows soft costs at about 20% of hard costs, excluding the costs of a tax credit investment. The average of these three estimates is 25% and that is the percentage that will be used in this analysis to estimate soft costs. (Refer to Table H-32.)

Table H-32

Cost Per Square Foot/Residential

Land	.34 - \$1.00
Construction	\$38
Soft Costs	\$13
Total	\$52

Unit Size and Cost per Unit

The units to be replaced may be one, two, or three bedroom units, ranging in size from 600 to 1,000 square feet each. For the purpose of this estimate, an average two-bedroom unit of 850 square feet has been chosen. This average unit would cost approximately \$44,200 to construct.

Estimating Conventional Finance

The amount of conventional finance that can be supported by each project is estimated as follows: rent per month times 12 times number of units times .95 (a vacancy factor of 5%). From this amount are subtracted operating expenses times 12 times number of units. Operating expenses are estimated at \$250 per month per unit. This amount is based on the experience of the California Equity Fund, the Los Angeles Community Design Center.

Housing

****Residential Land Costs in the City are about \$.34-\$1.00 per square foot.**

*****Estimates of soft costs vary.** The Building Industry Association in Palmdale estimates soft costs at 40% to 50% of hard costs. The California Housing Partnership, which has published guidelines for estimating preservation and replacement costs advises the use of 15% of hard costs to estimate soft costs. A model tax credit spreadsheet provided by the California Equity Fund shows soft costs at about 20% of hard costs, excluding the costs of a tax credit investment. The average of these three estimates is 25% and that is the percentage that will be used in this paper to estimate soft costs.

Community Corporation of Santa Monica and other nonprofit operators in Southern California. The result, termed net operating income (NOI), is divided by 1.10 (debt service ratio of 1.1). This amount in is the amount available for debt service. All projects are assumed to be low income and therefore exempt from property taxes except the bond financed units. All units are assumed to be two-bedrooms. Rents are set at \$489 per month for very low income households and \$600 per month for market rate units.

Costs to Replace Section 236 Housing

The total cost to replace 122 units subsidized by Section 236 with new construction would be \$5,857,830.

Cost to Replace Bond Financed Units

There are 138 bond-financed units with restricted rents. To replace these in another bond program would require the production of a total of 690 units. Total construction and land would cost about \$37 million. The owner is expected to contribute 15% equity, about half of which could be derived from tax credits on the 138 subsidized units. The rents on the lower income units are estimated at 50% of median income--\$489 per unit per month. Market rents of \$600 on 552 units plus \$489 per month on 138 units (minus \$250 per unit in expenses) would support payments on \$31 million in bonds, allowing additional cash flow for profit, payments on other loans and taxes. The cost to the City of issuing these bonds would be about \$326,809.

Cost to Replace Section 221(D)(4) Units

There are 382 units with Section 221(D)(4) finance. Using the cost estimates above, the cost to replace these units would be \$12,376,645 in 1995-1996 dollars.

IV. RESOURCES FOR PRESERVATION AND REPLACEMENT

A. Public Agency and Nonprofit Housing Corporations

There are no community-based nonprofit housing corporations in Palmdale or Lancaster. However, the City has recently teamed together with Southern California Housing Corporation for the purpose of purchasing and rehabilitating senior and low-income units. Table H-33 is an list of nonprofit entities in Los Angeles County interested in the right of first refusal program. This list was provided by the California Department of Housing and Community Development. Only organizations with demonstrated capacity to work throughout the County are included.

The California Housing Partnership, chartered by the state legislature to provide education and technical assistance to Cities, non-profits and tenant about expiring uses, has asked the legislature for an amendment to its charter that would permit the organization to become a nonprofit buyer of last resort for at-risk projects. The corporation would undertake to facilitate purchase of the project within five years by the tenants or another nonprofit buyer.

B. Other Organizational Resources

Information about LIHPRHA and about tenant roles in preservation can be obtained from the California Housing Partnership and the Housing Law Project located in Berkeley. However, information about tenant organizing can be obtained from the following organizations:

California Rural Housing Coalition
Rob Weiner, Executive Director
2000 O Street, Suite 230
Sacramento, CA 95814

Housing

Table H-33

Public Agency and Nonprofit Corporations

<u>Organization</u>	<u>Contact Name</u>	<u>Address</u>	<u>Phone</u>
Southern California Presbyterian Homes	Marc Herrera	1111 N. Brand Bl., #300 Glendale, CA 91202	818/247-0420
Community Development Commission	Milton Patterson	4800 Brooklyn Ave. Los Angeles, CA 90022	213/260-2081
Legal Aid Foundation of Los Angeles	Robert Longoria	5228 Whittier Bl. Los Angeles, CA 90022	213/266-6550
Los Angeles Community Design Center	Robin Hughes	315 West 9th St., #410 Los Angeles, CA 90015	213/629-2702
Southern California Housing Corp.	Thomas Jacobs	8265 Aspen Avenue Suite 100 Rancho Cucamonga, CA 91730	909-483-2444

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The California Rural Housing Coalition has its offices in the City of Sacramento. The Coalition has been working on preservation issues for a number of years. Services are generally provided in rural areas; however, the organization may be able to provide City staff or residents with information on how to obtain organizing assistance.

Coalition for Economic Survival
Steve Cancian, Organizer
1296 N. Fairfax
West Hollywood, CA 90046

The Coalition for Economic Survival, located in Los Angeles, has an organizing program for tenants in HUD units in the City of Los Angeles. CES is not equipped to provide direct organizing assistance to projects outside the City, however, the staff may be able to help train an organizer and provide referrals for organizing assistance.

Tamiko Brown
San Fernando Valley Neighborhood Legal Services, Inc.
13327 Van Nuys Bl.
Pacoima, CA 91331
(818)896-5211

Legal Aid has produced a manual on preservation for HUD tenants that can be obtained at no cost. Legal Aid attorneys can provide legal services to HUD tenants working on preservation issues. Services for Palmdale residents are available from the San Fernando Neighborhood Legal Services office located in Pacoima.

National Housing Law Project
1950 Addison Street, Suite 200
Berkeley, CA
(510)548-9400

Housing

C. Public Financing and Subsidy Programs

Table H-34

Resources for Preservation or Replacement of Section 236(J)(1) units (1995-1999)

1995-1999 Preservation Resources

Total funding to Preserve 122 Units, 1995-1999

<u>Source</u>	<u>Local</u>	<u>Other</u>	<u>Total</u>
Redevelopment HUD Preservation Loan	\$655,800	\$5,202,030	
Total	\$655,800	\$5,202,030	\$5,857,830

1995-1999 Replacement Resources

Total Funding To Replace 122 Units, 1995-1999
Units Affordable to Households at 50% of Median Income

<u>Source</u>	<u>Local</u>	<u>Other</u>	<u>Total</u>
CDBG Redevelopment Tax Credits Conventional Loan	\$1,708,430	\$1,959,930 \$3,660,000	
Total	\$1,708,430 \$1,358,555	\$5,519,930 \$5,174,545	\$7,328,360 \$6,533,100

Resources 1995-1999 Preservation or Replacement of Section 236(J)(1) units (1995-1999)

The National Housing Law Project has developed training manuals for tenants and staff or Cities and nonprofit organization on preservation under LIHPRHA. Staff will provide limited advice by phone on preservation issues.

Southern California Association of Non-Profit Housing (SCANPH)
4032 Wilshire Blvd.
Los Angeles, CA 90010

SCANPH provides training sessions on nonprofit development and management and on preservation issues. Ann Murphy, Program Director, can provide information and referrals for organizing and technical assistance.

The resources for preservation or replacement of at-risk units for the 1995-1999 planning period are described below and in Table H-34.

CDBG. The City's CDBG allocation for 1995-1996 is about \$999,000. Part of this money, about \$142,000, is spent on critical social services; about \$18,000 for a food distribution program; another 20% is set aside for administrative costs and the remaining amount is spent on capital improvements.

Redevelopment. The annual revenue for the Low and Moderate Income Housing Set Aside fund of the Palmdale Redevelopment Agency is estimated at an average of \$3,000,000 per year. In 1995, the fund has a balance of over \$7 million.

Tax Credits. Tax credits usually yield about 60 cents on the dollar of qualified basis or about 30% of development cost.

In replacing 122 units of family housing at a cost per unit of \$30,000 or a total cost of \$3,660,000, tax credits would yield about \$1,089,000.

The renewal of the tax credit program is an issue every year but Congress is considering making the low income housing tax credit a permanent program.

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Conventional Finance. A conventional loan from a bank or affordable housing lender such as the California Community Reinvestment Corporation, Federal Home Loan Bank Affordable Housing Fund, or SAMCO can be supported by the portion of tenant rents not devoted to operating expenses, reserves, and tax credit partnership accounting.

Low Income Housing Preservation and Renter Homeownership Act (LIHPRHA). For Section 236 and Section 221(D)(3) loans subject to this act, HUD will provide a preservation loan of 95% of the project's assessed value and incentives in the form of increased Section 8 contract rents, a rehabilitation loan and an equity take-out loan to owners who continue in the program. The same or similar incentives are available to resident and other nonprofit purchasers.

Rental Housing Construction Program (RHCP). Over the past several years the State's voters have approved over \$700 million in state bond funds to finance construction and rehabilitation of low income housing. These funds are now nearly depleted. A new bond issue of about \$350 million has been proposed but is not yet on the ballot. Future funding for this program is dependent on economic conditions in the State, including the rating given the State's bonds by the nation's bond rating institutions. If economic conditions are poor, the State's voters may have little enthusiasm for new bond issues. If economic conditions improve, funding for the State's housing program could be renewed.

HOME. This is a federal program called the HOME Investments Partnerships Act. It provides direct subsidies for constructing or rehabilitating multi-family rental housing. It is best to use HOME funds in conjunction with local funds and conventional finance. Under HOME regulations, if tax credits are used, the value of the tax credit investment per unit must be subtracted from the HOME subsidy per unit. Federal regulations put a per unit cap on HOME funds of about \$57,000. However, local governments may impose a lower cap if they wish.

The total 1995 appropriation for HOME is approximately \$1.5 billion. Cities, counties and states receive an allocation of funds based on population and other factors. Most, but not all, CDBG entitlement Cities received HOME allocations. The City is proposing to apply and receive Home Funds from the State as soon as State Notice of Funds Availability (NOFA) is released.

Table H-35

Resources for Preservation or Replacement of Section 221(d)(4) units (1995-1999)1995-1999 Preservation Resources

Total Funding to Preserve 382 Units, 1995-1999
 Units Affordable to Households at 50% of Median Income

<u>Source</u>	<u>Local</u>	<u>Other</u>	<u>Total</u>
Redevelopment	\$618,832		
Conventional			
Finance		\$7,954,052	
Tax Credits		\$3,712,944	
			\$12,376,645
Total			\$7,486,600

1995-1999 Replacement ResourcesTotal Resources to Replace 166 221(D)(4) Units 1995-2000

<u>Source</u>	<u>Local</u>	<u>Other</u>	<u>Total</u>
Redevelopment	\$618,832		
Conventional		\$7,954,052	
Tax Credits		\$3,712,944	
			\$12,376,645
Total			

Total Resources to replace 138 bond-financed units 1995-1999. (20% of 690 bond-financed units)

<u>Source</u>	<u>Local</u>	<u>Other</u>	<u>Total</u>
Redevelopment	\$400,000	\$37 million	\$37,400,000

Housing

The County has a HOME allocation of approximately \$13 million for 1995. The guidelines for the County will allow about \$40,000 per unit for a new construction project with a limit per project of about 20 units. Therefore, a developer could obtain about \$800,000 in HOME funds from the County.

Resources 1995-1999 for Preserving or Replacement of Section 221(d)(4) (1995-1999)

The resources for preserving or replacing at-risk units during the 1995-1999 planning period are described below and in Table H-35.

Redevelopment. Low/mod set-aside housing production program: the annual revenue of the redevelopment agency's low/mod set-aside program is about \$3,000,000. Over five years, the fund will receive about \$15,000,000.

Tax Credits. The total development cost to replace 383 units of 221(D)(4) housing would be \$12,376,645. Tax credits for these units would be worth \$3,712,944.

Mortgage Revenue. 690 total units to obtain 138 (20%) affordable units.

Bonds. Rents of \$600 per month on 552 market-rate units and \$489 on 138 very low income units would support \$31 million in bond financing.

Conventional Loan. Loan sources are listed above under 1989-1994.

Section 202. In 1995, according to HUD staff, land and new construction costs in Palmdale of about \$52 per square foot fall near 1995 cost guidelines for the Section 202 program. Therefore, if the City had to replace the 76-unit senior project now financed under Section 221(D)(4), a Section 202 loan would provide between 80% and 100% of the costs. Section 202 will even reimburse the City for predevelopment expenses that fall within program guidelines.

The Section 202 program has been part of the federal housing budget for a number of years and it is very likely that this program will continue to be available. It isn't possible to predict with certainty that production costs in 1995, the Section 8 renewal date for the senior project, will continue to meet federal guidelines, but it isn't unlikely.

It would be possible to replace the 76 units of 221(D)(4) senior housing with a senior project financed by Section 202. Total replacement cost for the 76 units would be \$4,069,800. Section 202 could supply between \$3.2 million and \$4 million to construct this project.

HOME. HOME funds, described under the previous Section above, could also be used to meet replacement costs in this five-year time period. During this period the City may qualify for its own HOME allocation, enabling City staff to determine how to use the funds.

LIHPRHA. None of the at-risk units in this period are subject to LIHPRHA.

V. QUANTIFIED OBJECTIVES

Table H-36 summarizes quantified objectives for constructing, preserving and conserving housing during the planning period. Housing is conserved when its affordability is maintained. Over the next five-year period, 1995-1999, the City will continue to conserve 122 units of family housing subsidized by Section 236 and Section 8. The most likely means of conservation will be through the owner staying in the subsidy program with incentives. The City has met its new construction objectives for the planning period 1989 through 1994. Between 1989 and 1994, 14,199 single family units were constructed in Palmdale. The City expects that residential construction of between one and two thousand additional units per year will continue throughout the five year period from 1995-1999. The City will also continue to provide housing rehabilitation programs during this planning period. However until RHNA numbers are provided by SCAG, detailed objectives for the planning period for new construction for 1995-1999 are not provided herein.

Housing

TABLE H-36

CITY OF PALMDALE QUANTIFIED OBJECTIVES 1989-1995

Type of Housing	Very Low	Low	Moderate/Middle	High	Total
NEW CONSTRUCTION					
Units Constructed 1989-1992		1,359	6,114	3,849	11,323 units
Units Constructed 1993-1994		345	1,553	978	2,876 units
REHABILITATION					
Repairs, etc.	25				25 units
Mobile Home Park Purchase & Rehab	1 Mobile Home Park				1 park
SPECIAL NEEDS					
Senior Housing	25				25 units
PRESERVATION	122 units				122 units
CONSERVATION	184 Section 8 Certs. 10 Mod Rehab units				184 certs.
REPLACEMENT					
10 Units Replaced Senior Center Extension	10 units				10 units
FINANCING					
\$500 million single family mortgage revenue bond			500 below market interest rate loans		500 loans

Housing

TABLE H-36 B

CITY OF PALMDALE QUANTIFIED OBJECTIVES 1995-1999

Type of Housing	Very Low	Low	Moderate/Middle	High	Total
REHABILITATION					
Repairs, etc.	25				25 units
Mobile Home Park Purchase & Rehab	1 Mobile Home Park				1 park
SPECIAL NEEDS					
Senior Housing	25				25 units
PRESERVATION	122 units				122 units
CONSERVATION	184 Section 8 Certs. 10 Mod Rehab units				184 certs.
REPLACEMENT					
10 Units Replaced Senior Center Extension	10 units				10 units
FINANCING					
\$500 million single family mortgage revenue bond			500 below market interest rate loans		500 loans

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VI. PROGRAMS

While it is highly unlikely that it will be necessary either to purchase or replace any of the federally subsidized units in Palmdale, the rent restrictions on the locally financed units will expire in 1997-98, at which time it will probably be necessary to refund the bonds. Resources for both preservation and replacement are identified in Section IV. The following adopted or proposed policies and programs contain provisions that address the need to preserve or replace at-risk units.

Objectives and Policies:

Objective H2.2: Preserve existing units currently assisted by the federal, state or local government.

Policy H2.2.1: Provide information and financial assistance to tenants of at-risk units to ensure preservation.

Policy H2.2.2: Preserve or replace all units with expiring subsidies.

Policy H2.2.3: Prevent or minimize displacement of low-income tenants in any at-risk properties.

Programs:

Program H1.A: New Housing Development

Based on the Regional Housing Needs Assessment prepared by SCAG in 1988, the previous objective in construction of new units was the production of 10,338 new housing units between 1989 and 1994. The new objective is to make provisions for the production of an additional 10,000 new units for the 1995-1999 planning period.

Quantified Objective: 10,388 new housing units to be constructed between 1989-1994. A total of 14,199 units were constructed within this timeframe; 11,323 units constructed between 1989-1992 and 2,876 units constructed between 1993-1994. By the end of 1994 the quantified objective had been surpassed by 3,811 units.

Housing

Responsible Agency: Planning Commission and City Council

<u>Implementation Actions:</u>	<u>Target Date</u>
Adopt Land Use Element.	January 1993*
Adopt Interim Zoning Consistency Map.	December 1994*
Draft Development Code.	Completed*
Adopt Development Code.	December 1994*
Meet the quantified objective unit production between 1995-1999	Ongoing

Program H1.L: Predevelopment Loan Program

Develop a fund to provide predevelopment loans to nonprofit agencies and resident associations to pay for financial consulting, fees, permits, inspections, and other expenses incurred in nonprofit acquisition, rehabilitation or construction of affordable housing.

Responsible Agency: Redevelopment Agency

<u>Implementation Actions</u>	<u>Target Date</u>
Develop program guidelines and recommended budget	November 1997
Begin program	January 1998

Program H1.K: Rental Housing Construction Program

Provide assistance to developers to construct affordable rental housing developments in the City to serve low income families and seniors and households with special needs. (See also Goal E, Special Needs Housing)

Responsible Agency: Redevelopment Agency

Housing

Implementation Actions

Target Date

Develop program guidelines and recommended budget
Begin program

Ongoing

Program H3.C: Mortgage Revenue Bonds

The mortgage revenue bond program provides project financing to rental housing at below market interest rates. Developers must agree to make 20% of the units available at rates affordable to very low income households for the duration of the bond financing, usually between ten and 15 years.

Responsible Agency: Redevelopment Agency

Implementation Actions

Target Date

Develop refinance guidelines

Completed*

Program H1.N: Condominium Conversion Standards Ordinance

Adopt an ordinance to create standards and criteria for conversion of multi-family rental units to condominiums.

Responsible Agency: Planning Department

Implementation Actions

Target Date

Develop findings and guidelines and draft an ordinance

December 1993*

Program H2.K: Tenant Assistance Program

Develop a program to provide information and assistance to residents in federally assisted units with expiring subsidies. Work closely with resident associations to facilitate preservation of at-risk units.

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Quantified Objective: Preserve 122 units of Section 236 housing at-risk in the period 1995-1999 through either continued operation by current owner or purchase by tenants or another nonprofit organization.

Responsible Agency: Redevelopment Agency

<u>Implementation Actions</u>	<u>Target Date</u>
Develop a tenant information program	January 1997
Publish a City phone number where tenants can call for information.	January 1997
Place a copy of the Preservation Amendment and other preservation documents in the public library.	January 1993*
Develop a grant program for tenant assistance.	June 1997

Program H2.L: Mortgage Revenue Bond Refinance Program

In rental housing financed with locally issued mortgage revenue bonds, develop standards and implement a program to refinance projects when rent restrictions expire, in order to preserve the City's supply of affordable housing. Conditions assessed in considering a refinance should be the number of low income households occupying the restricted units, and the willingness of the owner to make units affordable to households at 50% of median, annually certify income eligibility and extend affordability for 15 years.

Responsible Agency: Redevelopment Agency

<u>Implementation Actions</u>	<u>Target Date</u>
Develop refinance guidelines	1993*

SECTION 10: CONSTRAINTS ON HOUSING DEVELOPMENT

Government Constraints

Development Standards

Development standards can be divided into three different categories based on the designation of residential land as R-1, R-2 or R-3. In the R-1, single-family residential category, the minimum lot size is 7,000 square feet (3.1-6 units are permitted). Lot coverage shall not exceed forty percent; maximum height is two-stories to 35 feet. The minimum lot width is 65 feet; minimum lot depth is 100 feet with setbacks of 20 feet in the front and rear, five and 10 feet to the sides and 10 feet on exterior corners.

In the R-2 zone, the development of 6.1 - 10 units is permitted. This designation requires a minimum lot size of 7,000 square feet. Lot coverage is limited to a maximum of fifty percent, maximum height remains at 35 feet for two story units. The minimum lot width is 65 feet; lot depth is 100 feet front setbacks are 20 feet front, 15 feet rear, five and 10 feet on the sides and 10 feet for an exterior corner.

In the R-3 (multi-family) zone, a minimum lot area of 20,000 sq. ft. is required. Permitted density is 10.1 - 16 units per acre, minimum lot width is 100 feet, setbacks are 20 feet in the front and rear, five feet on each side, and 10 feet on the corner. The maximum height in this zone is 45 feet and three stories.

Development Processing²²

Development processing in Palmdale is very efficient and permitted the rapid expansion of the City's housing stock over the past ten years. Recently, the City has standardized conditions and established a 45-50 day schedule for the processing of applications for approval of subdivision tract maps. The tentative map is approved by the Planning Commission; the final map is approved by the City Council. The period between application and final map approval can be as short as two months. Once the subdivision has been approved, the site improvements and individual building plans are approved at staff level. The total time from first submittal to building permit generally ranges between eight and 18 months unless an EIR is required.²³ An EIR requirement will usually add an additional year to the process.

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A multi-departmental Development Advisory Board (DAB) has been established which increases the efficiency of the review process and eliminates the possibility that different departments will impose contradictory standards. The DAB has three critical functions in the review process: it determines the completeness of submitted applications, identifies environmental issues and applies conditions of approval to projects.

There has been a consistent pattern of single-family detached infill development in the City over the past several years. Multi-family development has been at a standstill for several years. Multi-family developments of five units or more are typically subject to site plan review. The site plan review is conducted by the Director of Planning in a public hearing. Processing of a multi-family development from first application to building permit is estimated to require between four and eight months.

Fees and Permits

The City levies a number of fees on new residential developments to cover the cost of processing development applications. Application review fees levied by the City include environmental review, planning review, construction plan check, building permits, and grading permits. The City also imposes a traffic impact fee, a drainage impact fee, and a park fee to fund construction of regional improvements needed to support new development.

The school district, sewer districts and utilities also levy fees on new development to support the development of infrastructure to accommodate the new construction. Utility fees include sewer and water hook-ups.

In 1995, the total estimated fees per unit for a single-family house are \$21,365 in 1995. Fees per unit for a multi-family development would be \$12,410. For an estimate of development fees please see Tables H-37 and H-38 under Market Constraints, Construction Costs.

Market Constraints

Land Costs

Between 1980 and 1991, the market has imposed very few constraints on residential development in Palmdale. Land prices, which are now estimated at between \$0.34 and \$1.00 per square foot, yield a cost for the minimum 7,000 square foot lot of between \$15,000 and \$20,000²⁹. In 1995, the average price of a new finished home in new subdivisions in Palmdale was \$132,340, with the median price at \$107,785. This price was approximately 63% of the 1995 median price of \$175,620 in the County as a whole.

Current market conditions are imposing the same constraints on Palmdale as on the rest of the County and the State. Housing construction, housing sales and housing prices have all dropped. In 1995, building permit issuance for new single-family construction averaged 46 units per month.

Construction Costs

The typical single-family home in Palmdale is developed as part of a subdivision of from 50 to 200 homes. Table H-37 shows typical costs for land, materials, labor and fees for a single-family residence. Fees account for 17% of all project development costs; land, 30%; and materials and labor, 53%. The smallest permitted single-family lot size is 7,000 square feet, yielding a density of up to 6 units to the acre. The General Plan Land Use Map designates this land use type as Single Residential 3 (3.1-6 du/ac). In 1995, the median price of all homes sold in Palmdale was \$107,785 with the largest proportion of home sales in the \$100,000 to \$125,000 range.²⁴

Table H-38 shows construction costs for a typical multi-family unit in Palmdale. The City's multi-family residential designation permits development at between 6.1 to 16 units per acre. Developers who meet the affordability criteria in the State's density bonus statute are entitled to a 25% density bonus. With the density bonus, maximum density would be 20 units to the acre. Without the density bonus, construction costs per unit for new multi-family development is an estimated \$49,638 per unit. The developer would probably have to set rents on this unit at \$750 per month. Since median rents in the City are only \$580, vacancies are high, and a new unit priced at \$105,000 can be purchased for as little as \$775 per month plus taxes, there is very little

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multi-family rental unit development occurring in Palmdale at this time. Multi-family projects currently being proposed are attached condominium units, and several existing apartment buildings are being proposed for condominium conversion as well.

Financing Costs

Individual home finance is readily available in Palmdale. Lending rates at three of the seven lending organizations in the City were surveyed and a table of the results compiled. Favorable terms available for home purchase loans include loan to value ratios of up to 95%, permitting homebuyers to move in with minimal down payments. The financing packages that are available range from conventional fixed-rate 30-year loans to variable rate loans. One institution offers a graduated payment loan with a lower interest rate in year one that allows the loan applicant to qualify with a lower income. Table H-39 shows the variety of financing options available from three of the City's principal mortgage lenders.

Information about construction loans for multi-family rental or ownership projects was not collected for this analysis. The high vacancy rates in the City's rental housing indicate that there is no market for rental housing at this time. The ability of the market to produce single-family ownership units for just above \$100,000 indicates that condominiums are not a competitive housing type in the City at this time.

Table H-37

**Estimated Construction Costs - Single-Family Detached Unit
(1,500 sq. ft. unit - 3 beds) 400 S. F. garage/1995**

Material/Labor	\$90,015
Planning Department Fees	175
Site Plan Review and Environmental Review	
Building Department Fees	2,080
Plan Check and Permits	
Engineering Department Fees	
Grading Plan Check and Permit	980
Engineering Plan Check and Permit	1,882
Drainage Fee	3,916
Traffic Impact Fee	1,254
Parks Fee	2,508
School Fee	2,760
Sewer Fee (hook-up)	1,760
Water Fee (hook-up)	3,000
Public Improvement Bonds	1,050
Land Cost	10,000
 Total Project Cost	 \$121,380
 Total Fees	 \$21,365

Excludes builder's profit, marketing and sales cost and construction financing cost.

Source: Palmdale Building and Safety Department, Engineering Department,
Planning Department

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Table H-38

**Estimated Construction Costs - Multi-Family Project/1995
(Fourplex - (1,261 sq. ft. units - 2 bds. each)+ 200 sq. ft. carport**

Material/Labor	\$288,312
Planning Department Fees	2,000
Site Plan Review and Environmental Review	
Building Department Fees	4,283
Plan Check and Permits	
Engineering Department Fees	1,450
Grading Plan Check and Permit	
Engineering Plan Check and Permit	3,765
Drainage Fee	5,404
Traffic Impact Fee	3,012
Parks Fee	6,688
School Fee	9,281
Sewer Fee (hook-up)	4,224
Water Fee (hook-up)	6,000
Common Laundry Room	2,000
Public Improvement Bonds	3,531
Land Cost	25,000
 Total Project Cost	 \$364,950
 Total Fees	 \$ 49,638
Fees Per Unit	\$ 12,410

Excludes builder's profit, marketing and sales cost, and construction financing cost.

TABLE H-39

**HOME LOAN INFORMATION FOR THE CITY OF PALMDALE
1995-1996**

Lending Institution	VA, FHA, Conventional	Amount of Loan	Fixed/Adjustable	30 Year/15 Year	Interest Rate	Points
First Interstate	Conventional	207,000 and Under	Fixed	30 Year	7.50%	1
	Conventional	207,000 and Under	Fixed	15 Year	7.00%	1
	VA	203,000 Maximum	Fixed	15 Year	7.50%	0.125
	VA	203,000 Maximum	Fixed	30 Year	7.75%	1
	FHA	Varies According to Geographic Area	Fixed	15 Year	7.50%	-0.25
	FHA	Varies According to Geographic Area	Fixed	30 Year	7.75%	0.625
	Conventional	207,000 - 300,000	Adjustable	30 Year	6.00%	1
	Conventional	207,000 - 400,000	Fixed	15 Year	7.63%	1
American Savings	Conventional	207,000 and Under	Fixed	30 Year	7.50%	1.5
	Conventional	207,000 and Under	Fixed	15 Year	6.88%	1.5
	VA	203,000 Maximum	Fixed	15 Year	7.50%	0
	VA	203,000 Maximum	Fixed	30 Year	7.75%	1
	FHA	Varies According to Geographic Area	Fixed	15 Year	7.50%	0
	FHA	Varies According to Geographic Area	Fixed	30Year	7.75%	1
	Conventional	207,000 - 300,000	Adjustable	30 Year	6.00%	1
	Conventional	207,000 - 400,000	Fixed	15 Year	7.50%	1.5
Bank of America	Conventional	207,000 and Under	Fixed	30 Year	7.63%	1.625
	Conventional	207,000 - 650,000	Adjustable	30 Year	5.50%	0
	VA	203,000 Maximum	Fixed	30 Year	7.50%	1
	FHA	Varies According to Geographic Area	Fixed	30 Year	7.50%	1
	Conventional	207,000 - 650,000	Fixed	15 Year	7.50%	1.875
	Conventional	207,000 and Under	Fixed	15 Year	7.13%	1.5

Notes: Call individual lending institution for details. *Terms and conditions subject to change. *Interest rates subject to change on a daily basis. *Other loan programs are available. *These are the basic loan programs offered by these institutions.

SECTION 11: ENERGY CONSERVATION

Because increasing utility costs affect housing affordability, Section 65583(a)(7) of the Housing Element Law requires the analysis of opportunities for energy and water conservation in residential development. Construction tools available for energy and water conservation include the following:

- Increase south facing glazing;
- Reduce west facing glazing;
- Landscape to shade windows;
- Deciduous plants for winter solar gain/summer shade;
- Roof overhangs on southerly windows;
- Attic ventilation;
- Solar heating for pools;
- Flow restrictions on faucets/showers;
- Weatherization;
- Lighting w/efficient lights; and
- Peak load management.

The City of Palmdale's principal means for addressing energy conservation in new housing is through Title 24 of the Uniform Building Code. The policies and programs section has several proposed energy conservation programs including a demonstration program to encourage the "desert housing types," an energy and water conservation checklist, and a Handiworker program to provide weatherization services to low-income households. The utility companies are responsible for providing their consumers with information on energy conservation in daily use.

SECTION 12: EVALUATION OF ACCOMPLISHMENTS 1989-1995²⁵

Listed below are the programs which appeared in the City's previous Housing Element, and the status of each program as of 1991:

Q. Housing Goals: Palmdale's major accomplishment in housing since 1989 has been the addition of 15,327 newly constructed single-family housing units to the City's housing stock. These units were priced considerably below the median price for housing countywide; in 1995 the median price of a total of 1,349 units sold was \$107,785.

A. Permit Streamlining: The City has accomplished this task through a reorganizing of procedures for permit processing. A Development Advisory Board coordinates the review of development proposals. The procedures for permit processing are summarized under Section 7, Government Constraints, Development Processing.

D-E. Single and Multi-Family Mortgage Revenue Bonds: Vacancies in rental housing remained high over the period 1989-1994; in 1990, the census reported an overall vacancy rate of 10% with a 15+ % vacancy in multi-family rentals.²⁶ The City did not issue any multi-family mortgage revenue bonds during the period; there was no market for additional rental units. There wasn't any demand for single-family mortgage bonds either, during the period 1989 to 1994; therefore, the City did not issue any of these bonds.

F. Mobile Home Ordinance: The City continues to permit the development of mobile homes and alternate housing types. In order to preserve the affordability of mobile homes for low income seniors and families, the City has enacted an ordinance controlling the lease rates for mobile home park spaces. In accordance with Program H2.J, a task force of mobile home park tenants and owners has been formed to negotiate issues of park management. The City is considering assisting mobile home park tenants to purchase and rehabilitate their parks. In addition, the City recently adopted a mobile home park closure ordinance (Ordinance No. 1082) which establishes guidelines for park owners and tenants in the event a park owner elects to close or convert the park to another use.

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G. Rehabilitation Loan Program: The City will study the feasibility of participating in the County's rehabilitation loan program. The City will also study the feasibility of developing a local rehabilitation loan program utilizing redevelopment funds and a handiworker program for weatherization, minor repairs and accessibility retrofit.

I. Low Income Subsidy Programs: The Element proposes two new programs to ensure the preservation of currently subsidized units in Palmdale. The City will study the feasibility of purchase and rehabilitation programs to improve the condition of the City's housing and provide additional subsidized units for seniors and other special needs populations. The City, in partnership with Southern California Housing Corporation, is currently in the process of purchasing and rehabilitating approximately 237 multi-family units located in the downtown area. These units, once rehabilitated, will be offered to qualified low to moderate income families. Over the next several years, plans include the rehabilitation of several additional existing apartment complexes in the downtown for seniors and low income families.

C. There are 288 units of federally subsidized very low income housing under Section 236 and Section 221(D)(4). There are also 138 moderate income units financed by City mortgage revenue bonds.

The Section 8 Program rental assistance program is administered by the Housing Authority of the County of Los Angeles. According to the Housing Authority, there are now 398 households in Palmdale with a Section 8 certificate or voucher; there are an additional approximate 1,000 Palmdale households on the Section 8 waiting list.

N. 20% Redevelopment Set-Aside: The City's redevelopment agency has established a 20 percent low and moderate income set-aside and is in the course of developing expenditure programs. The annual income of the set-aside fund is estimated at about \$3 million per year. Proposed programs included rehabilitation loans, a handiworker program, etc.

O. SAVES (South Antelope Valley Emergency Services) Program H5.G (SAVES Program): The City continues to provide administrative funding for SAVES, South Antelope Valley Emergency Services. City funds pay office expenses and two staff

salaries for this program which supplies emergency food baskets and emergency shelter vouchers.

P. Fair Housing Council; Program H4.A (Fair Housing Public Information Program): There is no Antelope Valley Fair Housing Council. The regional fair housing council that services the Antelope Valley is the San Fernando Valley Fair Housing Council. This Council receives discrimination complaints and provides housing information services. It does not conduct housing discrimination audits in the Antelope Valley. This program continues to be implemented by the City.

G. Solar Package/Insulation Standards: The City requires all new construction to meet the insulation standards set by Title 24 of the Uniform Building Code. A new program has been proposed to encourage the development of new housing prototypes for desert living that incorporate building orientation, landscape and passive solar into building design.

M. Public Participation and Awareness, and BB. Public Information: These are policies not programs. The City does advertise all hearings and workshops on housing issues. Information on energy and water conservation are provided by the respective utility companies. The City does not consider a public information campaign on City development necessary; information on development standards is provided by both the Planning and Building and Safety Departments. The City offers this information by phone as well as at the planning counter.

R. Community Design Guidelines: In December 1994, the City Council of the City of Palmdale adopted a Community Design Element of the General Plan which is currently being implemented by the Planning Department. The element will ensure that new housing will be functional while enhancing the aesthetic quality of the built environment.

S. Facility Fees and Projects: The City continues to assess facility fees and charges for private developments.

T. Site Plan Review: Multi-family developments are approved through a site plan review hearing conducted by the Planning Director or Planning Commission. All single-family subdivisions must be approved by the Planning Commission.

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U. Capital Improvement Plan, Z. Infrastructure Projects K. Coordination of Services and Infrastructure and V. Property Maintenance Ordinance: The primary method of infrastructure improvement is through exactions imposed on subdivision developers who either make payments to utility companies or make the improvements themselves. The City has established assessment districts for flood control facilities, and roadway improvements. One proposed subdivision will use assessment districts for basic site improvements. Over the past two years, short roadway sections and drainage improvements were installed with capital improvement plans. The City does coordinate improvement of roads and contracts for police and fire services with the County. A new Sheriff's substation has recently been opened in Palmdale permitting faster response times and better service.

The City's Department of Planning, Code Enforcement Division, regularly conducts site inspections. The code enforcement staff has been increased from one person to three, an effective tripling of capacity. A coordinated code enforcement team is being proposed by the City. This team, comprised of building and code enforcement inspectors, sheriff, fire and health inspectors would concentrate on those buildings in the City which are not maintained in acceptable condition by their owners.

W-X. Energy and Water Conservation Programs; Program H6.A (Energy and Water Conservation Checklist) and Program H2.B (Handi-Worker Program): The City requires that new development comply with the conservation measures prescribed by Title 24 of the Uniform Building Code. An energy and water conservation checklist for new buildings and a handi-worker program to weatherize existing units have been approved and are currently being implemented by the City.

Y, AA, CC. Regional concerns, Truck Routes and AICUZ standards: These are not considered programs of the Housing Element. With regard to AICUZ standards, restrictions are placed on housing development within the Aircraft Accident Potential Zones of USAF Plant 42 as discussed in the Safety Element. Truck routes have been established for all trucking, not just hazardous materials. These are found in the Circulation Element. The City cooperates as necessary with other Antelope Valley communities. (NOTE: Approximately 80% of the Housing Element implementation programs have been initiated and are currently being implemented by the City. The remaining 20% are planned to be implemented by 1999.)

Program H1.A (Construction of 10,338 units between 1989-1994). The City, in partnership with private developers, has accomplished this task by issuing building permits for a total of 14,199 units within this time frame. As such, the quantified objective was surpassed by 3,811 units; 136% of the allocated amount.

The following programs were all incorporated into the City's Zoning Ordinance which was approved by the Palmdale City Council in December 1994. These programs are now on-going.

- Program H1.B (Density Bonus Ordinance);
- Program H1.C (Second Unit Ordinance);
- Program H1.E (Minimum Residential Standards Ordinance);
- Program H1.N (Condominium Conversion Standards Ordinance);
- Program H2.A (Habitability Standard);
- Program H5.B (Senior Housing Design Review Program);
- Program H5.D (Develop a Dependent Housing Unit Ordinance);
- Program H5.E (Homeless Persons Facilities Designation);
- Program H5.F (Transitional Housing Designation);
- Program H5.N (Zoning Standards for Child Care Facilities; and
- Program H6.C (Desert Housing Type Demonstration Program)

The following programs have been initiated since the adoption of the General Plan (January 25, 1993) and continue to be implemented by the Redevelopment Agency and Housing Division of the City of Palmdale.

- Program H1.G (First-time Home Buyer Program);
- Program H1.H (Single Family Mortgage Revenue Bond Program);
- Program H1.I (Affordable Housing Land Bank);
- Program H1.K (Rental Housing Construction/Rehabilitation Program);
- Program H1.L (Replacement Housing Land Bank);
- Program H1.M (Replacement Housing Construction Program);
- Program H2.D (Multi-Family and Rental Unit Rehabilitation Program);
- Program H2.L (Mortgage Revenue Bond Refinance Program);
- Program H3.A (Housing Needs Assessment);
- Program H3.B (Community Development Block Program0;

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- Program H3.C (Mortgage Revenue Bonds);
- Program H4.A (Fair Housing Public Information Program);
- Program H4.B (Fair Housing Affirmative Marketing Prices);
- Program H5.C (Senior Housing Market Survey);
- Program H5.L (Section 8 Certificate and Voucher Program); and
- Program H5.K (Public Information Program on Access).

The following programs continue to be implemented by the Planning and Building and Safety Departments.

- Program H1.O (Permit Streamlining Program);
- Program H1.P (Housing Impact Review); and
- Program H5.M (Special Needs Site Review)

Program H2.F (Mobile Home Space Rent Control) continues to be monitored by the City in conjunction with the Mobile Home Park Rental Review Board.

Program H2.I (Mobile Home Task Force). Formation of the task force has occurred and therefore, this task has been fulfilled.

Program H5.A (Senior Housing Program). This program, which promotes the development of new or rehabilitated units for seniors, was initiated in December 1995 when Southern California Housing Corporation in partnership with the City of Palmdale, purchased the "Impressions" Senior Housing Project located at 38045 10th Street East. The City will continue to pursue this program's goals through the rehabilitation of additional units in the downtown area.

Program H6.D (Conservation Code Program). This program, which requires the City's Building and Safety Department to enforce the Uniform Building Code and Title 24 conservation measures, continues to be implemented.

In addition to the Housing Programs referenced above, the Planning Department is preparing an update of the City's Subdivision Ordinance. Estimated time of completion is July 1996.

Endnotes

1. Age data from Census Data Tables P13/14/15. Race by Sex by Age. From 1990 Census of Population and Housing Summary Tape File 3, Population: Age, Race, and Sex (Part 2), State of California State Census Data Center.
2. In January of 1995, the California Department of Finance estimates that Palmdale households have an average of 3.345 persons per households, a slight increase over the 3.14 persons per households reported by the 1990 census.
3. Census Data Tale P73, Presence and Age of Children and Employment Status. 1990 Census of Population and Housing, Summary Tape File 3, Population: Labor Force Status, California State Census Data Center.
4. County median income 1990 census: \$34,965
Palmdale median income 1990 census: \$41,974
5. Distribution of employment from Alfred Gobar Associates cited in Progress Report: Palmdale.
6. Projected Employment Protections provided by the City of Palmdale Planning Department.
7. Census Data Table P50/51. Travel Time to Work. 1990 Census of Population and Housing, Summary Tape File 3, Population: Transportation to and Place of Work. California State Census Data Center.
8. Census Data Table P49. Means of Transportation to Work. 1990 Census of Population and Housing, Summary Tape File 3, Population: Transportation to and Place of Work. California State Census Data Center.
9. Los Angeles County Population and Housing Estimates, January 1, 1995, California Department of Finance, Demographic Research Unit.

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10. Census Data Table H20/21/22. Units in Structure by Tenure. 1990 Census of Population and Housing, Summary Tape 3, Housing: Units in Structure and Value. California State Census Data Center.
11. Census Data Table HJ14/15/19. Tenure by Race and Hispanic Origin of Householder. 1990 Census of Population and Housing, Summary Tape 3, Housing: Tenure and Occupancy. California State Census Data Center.
12. In 1990, there were 194 renter occupied mobile homes in the City.
13. Census Data Table H21. Persons per Room. 1990 Census of Population and Housing Summary Tape File 1A. Southern California Association of Governments.
14. 1995/1996 Income Definitions Provided by the Department of Housing and Community Development (HCD).
15. Deleted
16. SCAG overpayment estimated in the 1988 RHNA were based on projections from 1980 census data.
17. Tepper, Paul S., "The Number of Homeless People in Los Angeles City and County, July 1995 to June 1996, Shelter Partnership, May 1995.
18. Temporary Shelter by District, AFDC Homeless Assistance, report of January, February, and March 1995. Data provided by Paul Fast, Director of Research, Los Angeles County Department of Social Services. Data interpretation conducted with the assistance of Mr. Woody, Analyst, Department of Research, DPSS.
19. Tepper, Paul, op, cit.
20. Homeless GR Applicants Receiving Emergency Lodging, March 1995. Data from the WISDOM Homeless Report reflecting the initial voucher only issued to

each applicant at time of application. Data provided by Paul Fast, Director of Research, Los Angeles County Department of Social Services.

21. Information on SAVES provided by June Hawker, Program Manager.
22. Summary of development processing provided by Mike Behen, Assistant Planner.
23. According to Planning staff, most projects do not require an EIR.
24. Data supplied by TRW Redi-Data based on County Recorder data for home sales.
25. The capital letters refer to the programs in the City's Housing Element dated 1990.
26. According to the 1990 census, in 1990 the overall vacancy rate in Palmdale was 10%. The vacancy rate in multi-family rental housing was 15.9%. By January of 1995, the overall rate, according to the California Department of Finance was 12.63%.
27. 1995 City and County Median Household Income provided by John Hedderson, Urban Research Unit, Los Angeles County, Regional Planning.
28. 1995 Unemployment rate provided by Andy Malakatas, Los Angeles County Regional Planning.
29. 1995 Residential Land Lists provided by Pat Hunt, Vice President of Hunt Realty.

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Sources of information

Patty Snowfox, Administrative Analyst, County Community Development Commission, Assisted Housing (Section 8 stats)

June Hawker, Antelope Valley SAVES (Homeless program info.)

Paul Fast, Director of Research, Los Angeles County Department of Public Social Services (Homeless Assistance Statistics)

Andy Malakatas, Los Angeles County Department of Regional Planning (1995 L.A. County Unemployment Rates)

John Hedderson, Urban Research Division, County of Los Angeles (1995 Median Household Income Levels)

Bob Schack, Stewart Title Company (1995 Home Sales)



Parks, Recreation and Trails Element

SECTION 1: INTRODUCTION

The Parks, Recreation and Trails Element of the General Plan will serve to guide future development of parks, recreational facilities, multi-use trails, bikeways and open space areas to serve the recreation needs of existing and future city residents. This element is an optional General Plan Element, authorized by Section 65303 of the California Government Code, and once adopted, it represents the eighth element of the City's General Plan. The goals, objectives and policies of each of the other elements of the General Plan have been integrated here to the extent that they affect parks, recreation, trails and open space.

Specifically, the Parks, Recreation and Trails Element serves the following purposes:

1. The Parks, Recreation and Trails Element informs the public of the City's goals, objectives, and policies for development of future parks, recreational facilities and the like, and it will provide a basis for funding prioritization and program development.
2. The Parks, Recreation and Trails Element includes the City's Local Open Space Plan as required by Section 65560 of the California Government Code.
3. The Element provides standards for the development of multi-use trails and bikeways and establishes the general alignment of these facilities. With this information, the City can better compete for State and Federal grants which fund construction of these recreation features.
4. The element serves as an informational document for city residents and other interested groups and individuals in determining how future parks and recreational facilities will be designed and constructed.

SECTION 2: GOALS, OBJECTIVES AND POLICIES

GOAL PRT1: Provide adequate parks to meet the needs of existing and future residents. (Objective PS5.4)

Objective PRT1.1: Adopt and implement a standard of 5 acres of parkland per 1,000 population for the City (Policy PS5.4.1).

Policy PRT1.1.1: Of the 5 acres/1,000 population, active park land must comprise no less than 3 acres per 1,000 population; open space may comprise 1 acre per 1,000 population; and the remainder can be composed of other public recreational facilities including Desert Aire Golf Course, portions of school sites which provide recreation facilities or play fields accessible to the public, or other comparable facilities. Of the 3 acre/1,000 population standard for active park land, develop 2 acres as community or specialty parks and 1 acre as neighborhood parks.

Policy PRT1.1.2: Ensure that park sites are located equitably, throughout the City, to maximize access to parks for all residents.

Policy PRT1.1.3: Provide a variety of parks throughout the City, including community and neighborhood parks, to meet the needs of all residents.

Policy PRT1.1.4: Adopt the park standards, described in Table PRT-1, which establish the type of parks and adopt the guidelines for the facilities to be developed in future parks.

Objective PRT1.2: Explore various means of acquiring parkland and seek creative and flexible techniques to accomplish City park goals, including but not limited to fee vouchers in exchange for parkland (Policy PS5.4.6).

Policy PRT1.2.1: Collect park fees and review this fee annually, to provide financing for improvement of parkland in Palmdale (**Policy PS5.4.4**).

Policy PRT1.2.2: Consider formation of a city-wide public financing district to provide funding for design, acquisition, construction and maintenance of parks throughout the City.

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Policy PRT1.2.3: Use of the fee voucher program will be at the discretion of the City, according to the provisions contained in Policy PS7.1.1, and only under the following circumstances:

The program can be applied in those Park Planning Areas, as shown on Exhibit PRT-1, where the ratio between existing population and park land acreage is less than 1 acre/1,000; or

In those Park Planning Areas where the ratio between the projected population (based on pending or approved tentative maps) plus the existing population and park land acreage is less than 1 acre/1,000 population; and

Where use of the park fee voucher will not preclude other park options which have a higher priority for implementation.

Policy PRT1.2.4: Continue to use the City's Capital Improvement Program as the mechanism for short-term planning for acquisition of park land and construction of park facilities.

Policy PRT1.2.5: Where appropriate, remodel or recycle existing vacant buildings, such as large retail or industrial buildings, for recreation uses.

Policy PRT1.2.6: When reviewing reclamation plans for quarries, incorporate provisions which allow reclaimed quarries to be used for appropriate recreational purposes.

Policy PRT1.2.7: Consider the following criteria when evaluating future park sites for acquisition or dedication. In the event that a park site is proposed for acquisition through park fee vouchers, or for dedication in lieu of payment of park fees, the proponent of the project shall provide information, to the satisfaction of the Director of Parks and Recreation and the Director of Planning, in order that the criteria listed below may be evaluated.

1. **Physical Considerations.** The physical aspects of a proposed park site shall be suitable for development as a park. Access, infrastructure and topography will be evaluated pursuant to the following criteria:

- a. **Street Access:** Community parks should have access from major or secondary arterial roadways. Neighborhood parks should have access from secondary arterial or collector roadways. Mini-parks may be accessed from local streets or cul-de-sacs. Park sites shall also be located to provide maximum accessibility from the areas to be served, meaning that they shall not be inaccessible to adjacent neighborhoods by virtue of development patterns, street layouts, block walls or other obstructions to accessibility.
 - b. **Availability of Infrastructure:** Park sites should be located in proximity to utility connections and along existing dedicated roadways. Where infrastructure is not available, the cost of providing adequate infrastructure to the site shall be considered in evaluating the suitability of the site.
 - c. **Size of the Proposed Site:** The park site should be of adequate size to accommodate the facilities needed within the area to be served, including but not limited to active and passive play areas, picnic areas, parking areas, structures, and adequate setbacks or buffers from neighboring land uses.
 - d. **Suitability of the Natural Terrain:** The natural terrain of the proposed park site should be such that the site can be developed without requiring extensive grading or recontouring of the natural topography.
2. **Land Use Considerations.** Future park sites shall be compatible with surrounding land uses and shall be in conformance with adopted local and regional plans. Prior to acceptance or acquisition of future park sites, the sites will be evaluated to determine their appropriateness from a land use perspective, based on the following criteria:
- a. **Compliance with applicable plans:** Proposed park sites shall be in conformance with any adopted Master Facilities Plan for Parks, applicable Specific Plan City's General Plan, and any adopted regional or subregional plan.

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- b. **Capacity to Serve Multiple Functions:** Where feasible, the park site should be located and/or designed to accommodate other public services/facilities such as drainage basins, fire stations, maintenance yards, trail staging areas, etc.
- c. **Local Population Density:** The location of future park sites should consider the surrounding population density. More park acreage is needed to serve recreation demand in areas of high density residential development. In areas with relatively low density development, fewer park sites are required.
- d. **Location of Other Parks, Availability of Other Recreational Amenities:** Consideration shall be given to the proximity of school sites or other parks, including parks under the jurisdiction of other local agencies. The availability of other recreational amenities such as private facilities and recreational amenities within common open space in multi-family developments should also be considered in selecting or accepting a park site.
- e. **Neighborhood Acceptance:** The proposed park site shall be compatible with the existing neighborhood in that it should provide recreational amenities which are suitable to and acceptable to a consensus of the neighborhood.
- f. **Consideration of Alternative Sites:** Prior to acceptance or acquisition of a site, an alternatives analysis shall be performed by the proponent of the site to determine if there are other more suitable locations within the applicable Park Planning Area which are better suited to be developed as a park. In the event that the alternatives analysis demonstrates that there are better alternative locations for park land development, those locations will be disclosed by the Director of Parks and Recreation to the City Council, prior to any action on the site in question.
- g. **Logical Progression of Development:** In the event that the proposed park site is to be acquired and held for a period of time prior to development (land banking), the site shall be evaluated to

determine when, according to a logical progression of development, the demand will exist for development of the site.

3. **Cost Considerations.** The cost of acquisition and development of the site shall be determined. In addition, a reasonable assessment of the opportunities which will be foregone by committing to the proposed action shall be made.
 - a. **Cost/Method of Acquisition:** The cost of any proposed park site, as well as the proposed method of acquisition, shall be evaluated to determine whether acquisition of a proposed site is fiscally sound. The cost for acquisition of park sites shall be based on fair market value as determined by a qualified appraiser.
 - b. **Proportion of Developed Parkland vs. Banked Land:** Prior to acquisition or acceptance of dedication of park land which will be banked to fill future recreation needs, an evaluation shall be made to determine the proportion of existing banked park acreage compared to existing developed park land. Where the proportion of banked land is higher than the proportion of developed land, that information shall be disclosed by the Director of Parks and Recreation to the City Council prior to acceptance of the site in question.
 - c. **Use of Undevelopable Property:** Where property which is constrained from development because of topography, geological hazards, flood hazards, excessive noise levels, or other similar environmental conditions is proposed as a park site, the purchase price of the property should be reflective of such development constraints. Park fee vouchers or in-lieu dedication should be similarly adjusted.
 - d. **Assessment of Other Parkland Development Opportunities:** The cost to the City of any loss of park fees shall be evaluated with respect to other opportunities to develop parkland which will be lost or deferred if the proposed acquisition or dedication is made.

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Objective PRT1.3: Wherever feasible, incorporate uses which increase the public benefit of park land, and are compatible with the goal of providing active recreation opportunities.

Policy PRT1.3.1: Where feasible, utilize parks for joint use as flood control facilities (**Policy PS5.4.7**)

Policy PRT1.3.2: Incorporate fire stations, maintenance yards, park-and-ride lots and other public facilities into parks, to share costs associated with land acquisition, provision of infrastructure and access and provision of shared parking, so long as the use does not conflict with providing active recreation opportunities.

Policy PRT1.3.3: Co-locate schools and parks, where possible, to provide extended opportunities to construct play areas, ball fields, basketball courts and other similar facilities which benefit both students and the general public.

Policy PRT1.3.4: Develop recreational facilities jointly with non-profit incorporated recreation organizations, such as Little League or AYSO, to assist in meeting City residents' demands for organized recreational opportunities.

Policy PRT1.3.5: Seek opportunities to develop regional parks or recreational facilities, which provide recreational benefits to a wide range of residents of the Antelope Valley, as a joint effort with the City of Lancaster.

Objective PRT1.4: Consider non-traditional types of parks to extend the range of recreational opportunities available within the City.

Policy PRT1.4.1: Create linear parks along drainage courses, utility easements or other such features. Linear parks can include pedestrian paths, bikeways or par courses (fitness courses).

Policy PRT1.4.2: Where previous development patterns preclude acquisition of large sites, consider developing tot lots or pocket parks to provide neighborhood recreation amenities.

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Policy PRT1.4.3: Where unique recreational demands exist, either within a neighborhood or city-wide, develop specialty parks, such as equestrian centers, sports complexes, amphitheater sites, arboretums or nature centers, to provide specific recreational opportunities.

Objective PRT1.5: Ensure that parks and recreation facilities are accessible to all citizens.

Policy PRT1.5.1: Incorporate all design features, required by the Americans With Disabilities Act, which improve access to parks and park facilities for handicapped citizens.

Policy PRT1.5.2: Where necessary, retrofit existing park facilities in order that they comply with the provisions of the Americans With Disabilities Act, affecting parking and access.

Policy PRT1.5.3: To the extent practical, provide playground equipment which provides recreational opportunities to handicapped children within City parks and provide features such as trails and signs for persons who are visually impaired and park structures which accommodate persons confined to wheelchairs.

Policy PRT1.5.4: Where appropriate, provide park facilities which meet the recreational needs of senior residents.

Policy PRT1.5.5: Ensure that parks are designed to promote the safety of all park users by incorporating features which discourage crime.

Objective PRT1.6: To the extent feasible, incorporate active parks in the City's open space network and trails plan.

Policy PRT1.6.1: Provide trail linkages through active park sites to connect nearby equestrian and multi-use trails, and bikeways.

Policy PRT1.6.2: On those park sites with steep slopes or other development constraints, leave natural areas for passive recreation pursuits.

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Objective PRT1.7: Seek public input on design of all new neighborhood and community parks in Palmdale (**Policy PS5.4.5**).

Policy PRT1.7.1: Prior to construction of new parks, provide opportunities for public input, including but not limited to, informal meetings with neighborhood groups, coordination with the community organizations and final approval by the City Council.

Policy PRT1.7.2: Consult with non-profit incorporated recreation organizations such as Little League, AYSO, Pony League, 4-H, Scouts and others to ensure that park designs incorporate, to the extent feasible, facilities which compliment the goals of these recreation providers.

Policy PRT1.7.3: Inform the Palmdale Chamber of Commerce of proposed park and recreation projects in order to apprise local business of city actions.

GOAL PRT2: Provide a broad range of recreational programs, including programs for all age and activity levels, educational programs and cultural events, to enrich the lives of Palmdale residents.

Objective PRT2.1: Provide a broad range of recreational activities for Palmdale youth.

Policy PRT2.1.1: Encourage organized youth sports programs; work with non-profit organizations to provide sufficient playfields and practice areas for activities such as soccer, baseball, T-ball, softball and football.

Policy PRT2.1.2: Develop more youth/recreation centers, like the existing Hammack Center, in locations throughout the City, to provide more locations for children and teen-agers to recreate.

Policy PRT2.1.3: Provide a range of activities, such as crafts classes, excursions, day camps, dance classes, karate/exercise classes, for children after-school or during off-track periods.

Policy PRT2.1.4: In addition to the activities offered at community parks, provide recreational opportunities at the other park sites throughout the City and at remote locations in neighborhoods not served by parks.

Objective PRT2.2: Provide a variety of recreation activities for adults.

Policy PRT2.2.1: Continue to provide organized adult sports, such as softball, basketball, and expand these programs as demand dictates.

Policy PRT2.2.2: Offer adult recreation programs at various times such as on weekends, or in the evening, to better accommodate schedules of the City's large population of commuting adults.

Policy PRT2.2.3: In addition to the organized sports activities, continue to offer a variety of programs, classes and excursions for Palmdale adults.

Objective PRT2.3: Continue to provide a broad range of recreational and social activities for seniors.

Policy PRT2.3.1: Provide recreation and education programs, exercise classes and health services to Palmdale's senior citizens to enrich and enhance their quality of life.

Policy PRT2.3.2: In addition to the Senior Programs offered at the Palmdale Senior Center, consider offering programs at remote locations such as future senior housing projects and senior care facilities, in order to reach a broader senior population.

Policy PRT2.3.3: Continue to provide excursions tailored to the recreational desires of seniors.

Objective PRT2.4: Provide opportunities for cultural and artistic activities within the community. (Objective PS5.8)

Policy PRT2.4.1: Continue to promote activities such as the Fall Festival, and Concerts in the Park to provide residents with cultural and entertainment options.

Policy PRT2.4.2: Construct an amphitheater or bandstand to expand opportunities for local outdoor concerts and/or theater productions.

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Policy PRT2.4.3: Consider sponsoring an annual cultural event such as a food festival, art show, film festival or Shakespeare festival.

Policy PRT2.4.4: Cooperate with existing local theater groups to ensure that future facilities incorporate design components which can serve their needs.

Policy PRT2.4.5: In order to help bolster the downtown businesses, evaluate opportunities to bring festivals to downtown.

Policy PRT2.4.6: Consider development of a city arboretum or garden.

Objective PRT2.5: Continue to recognize and assist other public and private entities which provide recreation or cultural opportunities.

Policy PRT2.5.1: Expand the range of educational, cultural and recreational activities offered at the City Library.

Policy PRT2.5.2: Encourage local groups and organizations who provide cultural opportunities or sponsor cultural events in the city by continuing to provide locations and facilities for these types of events.

Policy PRT2.5.3: Investigate opportunities to jointly sponsor cultural and educational events with the local school districts for Palmdale youth.

Objective PRT2.6: Ensure that all residents have equal access to recreational and cultural programs and activities.

Policy PRT2.6.1: Ensure that all locations where recreational and cultural programs are offered allow physical access to all residents in accordance with the Americans with Disabilities Act requirements.

Policy PRT2.6.2: Consider offering recreation activities in remote locations where there are no recreational facilities to serve local residents (the remote programs could be provided in a fashion similar to the programs libraries offer through book-mobiles).

GOAL PRT3: Provide a network of open space areas to provide for passive recreation opportunities, enhance the integrity of biological systems, and provide visual relief from the developed portions of the City.

Objective PRT3.1: Encourage the use of open space areas for passive recreation.

Policy PRT3.1.1: Encourage the placement of multi-use trails or Class I bikeways adjacent to or within open space corridors, except that the placement of these trails should not compromise the preservation of any sensitive environmental resources which may be present in the open space area.

Policy PRT3.1.2: Provide for access points into open space areas to encourage passive recreation activities such as hiking and nature study. These access points should be located at sites which can best tolerate human presence and not directly impact sensitive locations such as springs and archaeological sites.

Policy PRT3.1.3: Provide interpretive information in some locations to enhance the educational aspects of passive recreation; however, most open space should be left in as natural a state as possible.

Policy PRT3.1.4: Provide passive landscaped areas, where appropriate, to provide informal play areas which complement the play areas located in developed parks, and to provide green spaces for other passive recreational pursuits.

Objective PRT3.2: Develop an open space network through preservation of corridors along fault zones, natural drainage courses and in hillside areas to connect with the large areas of open space designated on the General Plan Land Use Map.

Policy PRT3.2.1: Adopt the Local Open Space Plan, attached as Appendix A, to ensure that development within the City's Planning Area maximizes the potential to preserve open space corridors.

Policy PRT3.2.2: Where appropriate, require the preservation of open space areas or open space corridors in areas which are master planned for development.

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GOAL PRT4: Develop a system of multi-use trails which provide connections to the County trails system and the City of Lancaster trails system.

Objective PRT4.1: Provide multi-use trails, for use by pedestrians, bicyclists and equestrians, connecting to existing or currently planned multi-use trails.

Policy PRT4.1.1: Adopt the Multi-use Trails Plan, shown in Exhibit PRT-2, which shall delineate the multi-use trails system for the City of Palmdale. The trails plan shall include all trails shown within the Planning Area, including those trails designated by Los Angeles County. Examine the feasibility of extending the multi-use trail system along the Southern Pacific Railroad, the Palmdale Ditch, and Amargosa and Ana Verde Creeks.

Policy PRT 4.1.2: Prepare a trail alignment study to establish specific trail alignments and construction phasing for the trails depicted on the Multi-use Trails Plan. The trail alignment study should consider the impact of trail users on sites along the trail which may contain potentially sensitive environmental resources.

Policy PRT4.1.3: Where feasible, provide trail connections from the backbone trail system shown in Exhibit PRT-2 to such features as schools, parks, and open space areas to provide off-street access.

Policy PRT4.1.4: Adopt the trail design standards, described in Table PRT-2 and Appendix A, which set forth the standards for trail easements, including minimum trail widths and clearances, maximum grades and road crossing details, and lists acceptable construction materials.

Policy PRT4.1.5: Provide trail support facilities, such as benches, trash cans and trail heads/staging areas, as needed throughout the multi-use trails network.

Policy PRT4.1.6: To enhance educational opportunities, place interpretive signage along multi-use trails at appropriate locations to describe important local natural history and sites of historic interest.

Policy PRT4.1.7: On certain trail segments which lead to interesting locations or view points, provide a paved path adjacent to the trail grade to improve access

for wheelchairs or persons with mobility impairments, and provide signage for visually-impaired persons.

Objective PRT4.2: Explore various means of acquiring trail easements or rights-of-way and pursue all available funding sources to provide trail acquisition and construction.

Policy PRT4.2.1: Require dedication of trail easements and/or construction of trail improvements as a condition of approval of development, to the extent allowed by law.

Policy PRT4.2.2: Consider the use of a public financing district to provide funding for design, acquisition, construction and maintenance of trails throughout the City.

Policy PRT4.2.3: To the extent feasible, use grant funding and private donations to finance trail construction.

Policy PRT4.2.4: Use the City's Capital Improvement Program to provide short-term planning for acquisition and construction of trail segments.

Policy PRT4.2.5: Where appropriate, construct trails through linear parks, along drainage courses, utility easements or other such features, to maximize the public benefit of these types of facilities.

Policy PRT4.2.6: Within developments proposed in areas designated for low density residential development, require feeder trails to connect to the main trail network.

Policy PRT4.2.7: Coordinate with the California Department of Water Resources to prepare a plan to reopen the trail adjacent to the California Aqueduct for public use.

Policy PRT4.2.8: Utilize volunteers as much as possible to assist with trail construction and maintenance; seek contributions of time and materials for trail construction; and encourage local groups and businesses to sponsor trail maintenance.

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Objective PRT4.3: To the extent feasible, ensure that trails are accessible to all residents.

Policy PRT4.3.1: Incorporate design features, including suitable trail tread materials, which provide access to trails by handicapped citizens.

Policy PRT4.3.2: To the extent feasible, design trails to maximize the safety of trail users by incorporating features which provide visibility and discourage crime.

GOAL PRT5: Promote bicycling as an important mode of transportation and recreation in the City of Palmdale.

Objective PRT5.1: Encourage bicycle use by developing a comprehensive bikeway network for the City.

Policy PRT5.1.1: Establish Class I, II and III bikeways throughout the planning area. Backbone Class I and II bikeways are shown on Exhibit PRT-3.

Policy PRT5.1.2: Delineate local bikeway planning areas, as shown on Exhibit PRT-4, to focus additional planning efforts towards establishing local bikeway networks which connect with the city-wide backbone system.

Policy PRT5.1.3: Reserve right-of-way, require dedication when appropriate, and ensure construction of bikeways through the development review process and Capital Improvement Program.

Policy PRT5.1.4: Require residential subdivisions designs to accommodate convenient pedestrian and bicycle access, both on and off site, through measures which may include the following (Policy C3.1.4):

- (a) Side-on cul-de-sacs, as opposed to standard cul-de-sacs, should be encouraged adjacent to major and secondary highways or pedestrian trails, to provide for pedestrian access through cul-de-sac ends.
- (b) Subdivision design should consider bicycle and pedestrian access to non-residential uses. These areas are best accessed through perimeter

(single-loaded) streets. In addition, a logical travel path should be provided between these facilities and nearby arterials.

Policy PRT5.1.5: Explore all available funding methods to implement the bikeway plan, including grant programs and special transportation funds.

Policy PRT5.1.6: Provide for linkage of bikeways to the multi-use trails network within the Planning Area.

Policy PRT5.1.7: Provide for the designation and improvement of bicycle support facilities, including staging areas, parking facilities and bike lockers, at appropriate locations along the bikeway network, through the development review process and Capital Improvement Program.

Objective PRT5.2: Provide bikeways which suit the access needs of all bicyclists in the City of Palmdale.

Policy PRT5.2.1: Utilize the following criteria in designating bikeways:

1. The bikeway network should be designed to suit the needs of all types of bike riding, including recreational, commuter, utilitarian and long-distance cycling.
2. The bikeway system should form a continuous network, with dead-end spurs minimized.
3. The bikeway network should interconnect public facilities, schools, parks, recreational areas, commuter facilities and major community, industrial, recreational, institutional, employment and commercial centers.
4. Utilize open space easements, public land, flood control facilities, the California Aqueduct right-of-way and utility easements, where appropriate, to facilitate the objectives of the Bikeway Network and establish safe and continuous off-street bikeways.
5. Where feasible, the bikeway system should be coordinated with bike routes in adjacent jurisdictions.

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6. The bikeway network should maximize opportunities for diverse recreational and scenic experiences.
7. Bikeways should be located and designed to permit the cyclist to reach destination points with a minimum expenditure of time and energy.
8. Off-street bikeways (Class I) shall be designed to accommodate pedestrian use, where appropriate.

Policy PRT5.2.2: Adopt the design standards, described in the State of California Highway Design Manual, Chapter 1000, which set forth minimum bikeway widths and clearances, maximum grades and road crossing details, among other things.

Objective PRT5.3: Increase the level of public safety for all bicyclists.

Policy PRT5.3.1: Bikeway safety shall be a primary consideration in the City's planning and design of the bikeway plan.

Policy PRT5.3.2: Require utilization of Class I bike paths in all master planned developments.

Policy PRT5.3.3: Establish maintenance levels and schedules for bicycle facilities, and implement on-going maintenance.

Policy PRT5.3.4: Locate and design bikeway facilities to promote safety through the avoidance of visually obstructive elements and the requirement of lighting, where appropriate.

Policy PRT5.3.5: Where feasible, bikeways should be physically separated from traffic lanes by landscaped areas, grade changes, or physical barriers to enhance bicyclist safety.

SECTION 3: IMPLEMENTATION MEASURES

The following section contains specific implementation measures for the City to follow in order to achieve the goals and objectives related to land use as established in this Element.

A. Funding Sources

Implementation of many of the goals, objectives and policies described in Section 2 will require funding for acquisition of land, construction of facilities, maintenance of facilities or administration of programs. Funding can come from a variety of sources: the City's General Fund, park land in-lieu fees, park fee voucher program, other impact fees, public financing districts, and grants. Several of these funding mechanisms are described below.

1. **Review of the Park Land In-lieu Fee:** The City has in place a requirement that new development contribute to providing park land for its residents (Ordinance 505). To meet this requirement, developers may either dedicate park land or pay an in-lieu fee to the City for acquisition or construction of park sites. At the present time, this fee is \$804 per bedroom for single family residences, \$879 per bedroom for duplex or triplex units and \$828 per bedroom for apartments. At the present time, the fee amount can be adjusted on an annual basis according to change in the Consumer Price Index.

State law requires that impact fees assessed against new development must show a "nexus," or a connection, between the actual impact of the development and the remedy for that impact. In this case, the impact of new development is to cause the need for new parks in the amount of not less than 3 acres of active park land per 1,000 residents, according to Policy PRT1.1.1. The remedy for this impact is to dedicate and improve 3 acres of park land per each 1,000 residents who will reside in the development or to pay a fee which will result in the provision of 3 acres of park land per each 1,000 new residents. The existing park land in-lieu fee should be reviewed to ensure that it adequately reflects this standard. If appropriate, adjustments to the fee should be made to ensure that it

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represents the nexus, as required by law, between the impact of new development and the remedy of that impact.

2. **Park Fee Voucher Program:** The Park Fee Voucher Program was created by adoption of Ordinance 970 to address a shortfall in park land in an area identified as the Eastside General Plan Amendment area. Within this area, subdivision of land for residential development was progressing at a rate faster than the City could acquire park sites within that area. To address this potential problem, the City Council adopted this program and subsequently, the City acquired 40 acres of land for future development as parks. This program addressed a specific need but its application is not appropriate city-wide. Guidelines presented in Policy PRT1.2.3 explain the circumstances under which this program should be applied in other portions of the City. Review of the City's park planning areas, as shown on Exhibit PRT-1, on a regular basis will ensure that the program is applied to those areas where the immediate need for park land exists.
3. **Use of Grants:** Another method of acquiring funding for development of recreational amenities is the use of grant monies. There are a variety of grant programs, enabled through legislation such as the Interstate Transportation Enhancement Act (ISTEA) and the Land and Water Conservation Fund Act. These programs specifically set aside money to acquire and/or develop open space areas, trails or bikeways. The City should actively seek out these grant programs and submit appropriate projects for funding consideration. Although competition for these dollars can be high, the use of grants may be the only mechanism available to fund certain projects where the priority for funding through other sources is low.
4. **Use of Public Financing Mechanisms:** Public financing districts, such as assessment districts and Mello-Roos districts, can be a source of revenue for acquisition and construction of parks, recreation facilities, trails and open space. These districts place a special tax or assessment on properties which benefit from these facilities. The tax or assessment is paid by the property owner over a number of years until the bonds which were used to finance the improvements are paid. In the future, it may be feasible to fund recreational amenities in this manner. A public financing

district is proposed on the Ritter Ranch Specific Plan site to fund a range of infrastructure improvements including parks and trails. A public financing district, either covering a limited area or on a city-wide basis, could be formed to finance recreation features, at the discretion of the City Council and/or registered voters within the proposed district.

5. Use of Community Development Block Grant (CDBG) Funds: Community Development Block Grants are issued under a federal grant program administered by the Department of Housing and Urban Development (HUD). These grants can be used to provide infrastructure improvements such as streets and sidewalks, assistance to local business and service organizations, or a variety of other projects which provide direct benefits to low income residents within eligible census tracts, as determined by HUD. Accordingly, CDBG funds can be used to construct parks or provide recreation programs in certain portions of the City. The City is seeking designation as an "entitlement" city by HUD in order to have more control over the local expenditure of CDBG funds. In the future, these funds may be an important source of revenue for parks and/or park programs.

B. Implementation of the Park Acquisition and Improvement Plan, the Trails Plan, the Bikeway Plan and the Open Space Plan:

1. Park Acquisition and Improvement Plan: Exhibit PRT-1 shows how the residentially designated areas within the City have been delineated into Park Planning Areas. The boundaries of the Park Planning Areas were determined by factors such as physical barriers, development demand and differences in land use intensity. The delineation of park planning areas will assist in determining priorities for development of active park lands, and will dictate those areas where use of the park fee voucher program may be appropriate. The Park Planning Areas will form the basis for implementing the Park Acquisition and Improvement Plan as it relates to location of park land throughout the City. Determination of the type of park and the degree of improvements on a specific site should be based on the park standards shown on Table PRT-1.

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2. **Multi-use Trails Plan:** Exhibit PRT-2 depicts the Multi-use Trails Plan for the City. This Plan will be the basis for constructing a trail system throughout the City which links to existing and currently planned trails in unincorporated portions of Los Angeles County and the City of Lancaster. Exhibit PRT-2 shows general trail alignments; specific locations of easements will need to be determined through subsequent planning efforts. The trails plan includes trails within the Planning Area which have been designated by Los Angeles County, trails planned for the Ritter Ranch and City Ranch Specific Plan areas, and trails proposed by the City. All trails shown in the Planning Area, including those designated by Los Angeles County, are subject to the goals, objectives and policies contained in Section 2.
3. **Bikeway Plan:** The City's backbone bikeway network is shown on Exhibit PRT-3. This network is linked to the City's Multi-use Trails System and bikeways from Lancaster. In addition, local bikeway network planning areas have been identified on Exhibit PRT-4. In these areas, local bikeway networks can be established, connecting neighborhood parks, schools and shopping areas. Local bikeway networks can be delineated through comprehensive development plans or specific planning efforts such as the case of the Ritter Ranch and City Ranch Specific Plan areas. By planning bikeways on a local scale, more attention can be paid to constraints such as existing development patterns, roadways with rights-of-way widths which are insufficient to allow the safe passage of bicycles, and any physical barriers which would restrict safe access.

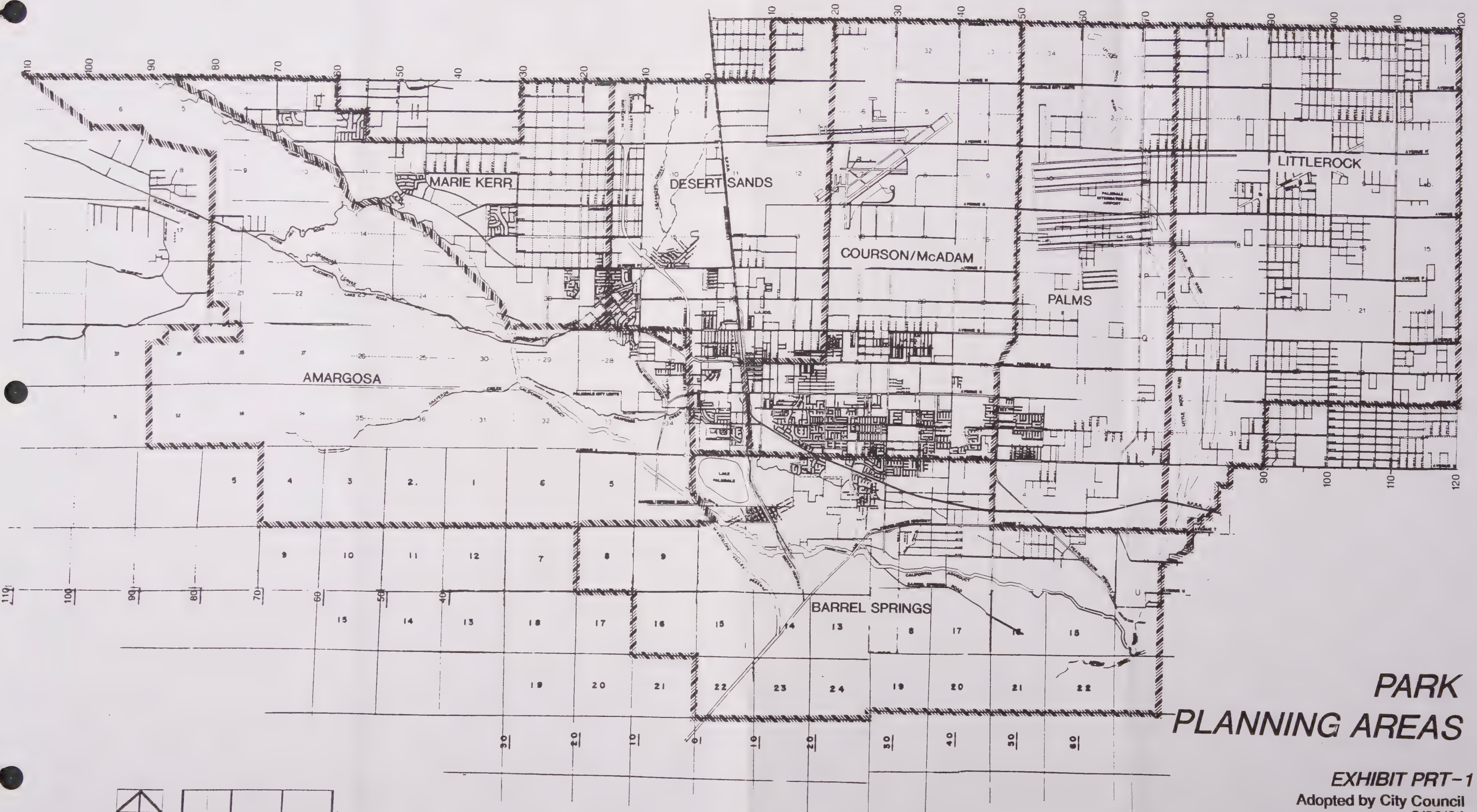
Adopted bikeway standards will be those recommended in the State of California Highway Design Manual, Chapter 1000.

4. **Local Open Space Plan:** The Local Open Space Plan, attached as Appendix A, provides a compilation of existing General Plan policies which direct development in areas where opportunities to preserve open space may exist. For example, hillside areas, the rift zone and flood hazard areas contain development constraints which could translate into open space corridors. The Local Open Space Plan will serve as a comprehensive reference guide for City staff, developers and members of the community when assessing development projects proposed

throughout the City. This plan will help coordinate efforts to provide open space and recreation opportunities to residents, as well as preserving sensitive habitats and species, where present. Open space opportunities exist in the Ritter Ridge, Portal Ridge, Little Rock Wash, Big Rock Wash and Alpine Butte areas and along the San Andreas Rift Zone and hillside areas. All available regional, state and federal funding will be solicited in order to acquire targeted significant ecological areas. Additionally, the City may require dedication of open space, when appropriate, as a part of the development review process.

C. Reservation of Land for Park Sites, Trails and Open Space

1. Development Review Process: Prior to approval of any land use entitlement application, City staff reviews the application for compliance with existing city regulations, standards and policies. During this process, the City can apply conditions of approval which act to implement the City's regulations, standards and policies, including the policies contained herein. Through a development's conditions of approval, the City can ensure that adequate easements are reserved for trails, that sufficient land is set aside for parks (or that sufficient in-lieu fees are paid to provide for off-site parks), and that development is configured in such a way as to maintain areas which should be left as open space. To the extent permissible by State law and City regulation or policy, the development review process serves as an essential tool in implementation of this element.
2. CEQA: The California Environmental Quality Act (CEQA) (Division 13 of the Public Resources Code) was passed in 1970 to protect the quality of the environment. The City will continue to implement CEQA as it is amended from time to time, through adoption of City CEQA guidelines and procedures. As part of the City's CEQA procedure, site-specific special reports may be required prior to approval of development applications to determine areas of sensitive environmental resources where acquisition of open space may be warranted. The City requires biological assessments and reports for projects in known or suspected natural habitat areas prior to project approval. These reports will be used to establish significant natural habitat areas and ecologically sensitive



North

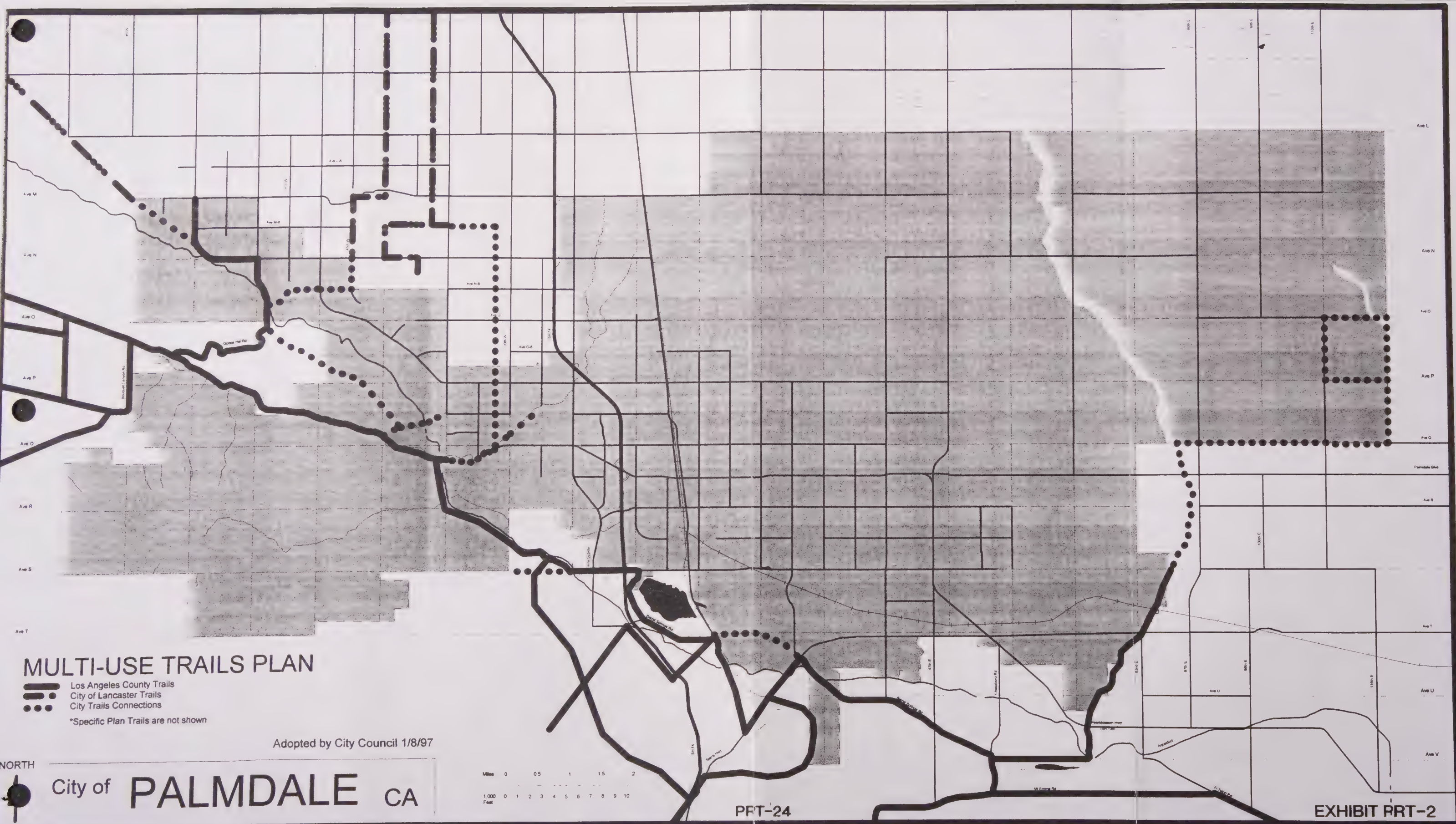


0 4000 5000 Feet

PRT-23

PARK PLANNING AREAS

EXHIBIT PRT-1
Adopted by City Council
3/09/94



MULTI-USE TRAILS PLAN

- Los Angeles County Trails
- City of Lancaster Trails
- City Trails Connections
- *Specific Plan Trails are not shown

Adopted by City Council 1/8/97



zones in order to prevent disturbance and degradation of these areas. Recommended mitigation measures as identified in the reports will be required to be implemented as development occurs.

In addition, the CEQA process assesses the impacts of proposed projects on parks and recreational facilities, and conformance of projects with approved plans, such as the Multi-use Trails and Bikeways Plans. Therefore, the CEQA process can act to trigger dedication of parkland or reservation of trail easements.

3. **Hillside Ordinance:** The City has developed a Hillside Ordinance to protect the hillsides from insensitive development. The ordinance contains standards which will apply to areas with a natural slope of 10 percent or more. In addition to safety benefits, these standards will help to preserve open space, natural grades, scenic views and visually prominent landforms, and prevent landslide and erosion hazards. The ordinance also encourages density clustering to allow contiguous open space areas to remain undisturbed.
4. **Circulation Element:** Bikeways located adjacent to public streets can be shown on the right-of-way cross-sections established in the Circulation Element for arterial roadways. Once shown on the Circulation Element cross-section, acquisition or dedication of adequate right-of-way for construction of bikeways will be facilitated. However, modification of these roadway cross-sections will require a General Plan amendment.

D. Other Implementation Methods

1. **Memoranda of Understanding with Local School Districts:** Memoranda of Understanding (MOU) provide a formal basis for shared use of recreational facilities between the City and the various school districts. This formal arrangement provides a mechanism for obligating funding for joint use facilities in exchange for agreements providing access to those facilities to either the general public, in the case where the City provides facilities on school sites, or for district students, should school districts construct recreational facilities on adjacent park sites, or provide school property for development as a park. Use of MOUs can ensure that the

Parks, Recreation, and Trails

City and the school districts achieve their recreation goals at a reduced cost to both parties.

2. **Encourage Implementation by Volunteers:** The bulk of the goals, objectives and policies contained in this element can be implemented through volunteer efforts of the City's residents. Volunteers can, among other things, supervise recreation programs, construct and maintain trails, direct organized youth and adult sports programs, and raise funds for acquisition and/or construction of a variety of recreational facilities. Although volunteers currently play an important role in the City in providing recreation programs, that role can be greatly expanded to affect a wide range of other recreationally-related programs and needs. The City must make a conscious effort to more fully utilize its most valuable resource, the energy and ability of its residents, in order to implement this element in a timely manner.
3. **Implementation of Americans With Disabilities Act (ADA) Requirements:** The ADA, adopted in 1991 by Congress, requires that all public facilities be accessible to all members of society, including those people with physical handicaps. The public facilities, including parks, which are administered by the City of Palmdale fall within the requirements of this legislation. Therefore, the City is in the process of determining which facilities must be retrofitted to be in compliance with ADA requirements. With regard to parks, most existing facilities require some modifications to the parking area, and in some cases, replacement of playground equipment is necessary. The priority and timing of these modifications has not yet been established. To a certain degree, the priorities will be established through the goals, objectives and policies contained in this element.

E. Standards for Park Development

The standards and guidelines contained in Table PRT-1 should be considered for acquisition of park sites and construction of park improvements. These standards should be reviewed by staff and local decision-makers periodically (every three to five years), to ensure that the standards are in line with current community needs.

**TABLE PRT-1
PARK STANDARDS**

<u>PARK TYPE</u>	<u>TYPICAL SIZE</u>	<u>TYPICAL FEATURES</u>
Mini-park	0-3 acres	tot lots, play areas and picnic areas.
Neighborhood Park	3-7 acres	ballfields, picnic areas, tot lots, restrooms, playgrounds, basketball courts, tennis courts, volleyball courts, trails
Community Park, including linear parks, speciality parks, and nature parks.	5-50+ acres	includes features found in neighborhood parks plus pools, gymnasiums, amphitheaters, equestrian facilities, sports complexes, and other similar facilities.

RECREATION FACILITY GUIDELINES:

(Guidelines include all available facilities city-wide, including those facilities provided on school sites or by private recreation providers)

<u>FACILITY</u>	<u>GUIDELINE</u>
Tot lots:	1 per park
Picnic areas:	1 per park
Ballfields:	
softball, baseball,	
little league:	1 field/5,000 population
soccer/football:	1 field/5,000 population
Courts:	
basketball courts:	1 court/5,000 population
tennis courts:	1 court/5,000 population
volleyball courts:	1 court/5,000 population
Swimming pools:	1 pool/20,000 population
Gymnasium:	1 gymnasium/20,000 population
Stage/bandstand:	1 stage or bandstand/50,000 population
Amphitheater:	1 amphitheater/100,000 population
Equestrian center:	1 equestrian center/150,000 population
Sports complex:	1 sports complex/150,000 population

**Parks, Recreation,
and Trails**

**TABLE PRT-2
TRAIL STANDARDS**

Easements:	Typical Width: 12 to 20 feet, unless adjacent to a bikeway. Easements for feeder trails can be as narrow as 8 feet.
Trail Tread:	Minimum Width: 10 feet for backbone trails, 6 feet for feeder trails. Minimum Clearance from Grade: 12 feet
Vertical Grade:	<div>0% to 5% Optimum vertical grade</div> <div>6% to 10% Maximum grade for distanced over 500 feet</div> <div>11% to 15% Permitted vertical grade, limited to distances of 500 feet or less</div> <div>16% to 20% Vertical grade permitted only in extreme cases and for distances less than 100 feet</div> <div>21% and above Not permitted</div>
Cross Section Slopes:	<div>1% to 2% Optimum cross section slope</div> <div>3% Permitted cross section slope</div> <div>4% Maximum cross section slope, and only as approved by the City Engineer</div> <div>5% and above Not permitted</div>
Side Slope Cuts and Fills:	2:1 grade maximum permitted
Tread Surfacing	Decomposed granite or cinder (or other materials approved by the City), minimum depth of 6" after 90% compaction. At trail entrances, tread surface may be asphalt or other surface which facilitates wheel chair access.
Fencing:	Fencing is not required within areas designated as open space. Fencing is required on all other trail segments. Fencing standards are provided in Appendix.

Standards for Trail Entrances, Fencing, Off-road Vehicle Barriers, Signs and Street and Driveway Crossings are shown in Appendix A.

F. Prioritization Criteria

The Park, Recreation and Trails Element's Goals, objectives and policies call for the construction of a wide range of facilities throughout the community. Since funding levels will probably not allow construction of the entire bikeway networks or all proposed parks at any one time, these facilities will be constructed in phases. Therefore, since phasing of recreational facilities will be required, criteria for prioritizing construction of the various facilities are described below. These criteria are in addition to any criteria contained in the policies listed in Section 2 of this element.

Multi-use Trails

1. The alignment of the multi-use trail segment is in jeopardy of being eliminated due to pending development;
2. The multi-use trail segment will connect existing discontinuous multi-use trail segments;
3. There are existing resources, such as road crossings, rights-of-way or a historic trail bed along the alignment of the propose trail segment;
4. The multi-use trail segment will fulfill a significant recreational demand; and
5. The multi-use trail segment will connect the multi-use trails network to feeder trails or the bikeway network.

Bikeways

1. The bikeway segment will remedy an existing hazardous condition for bicyclists and/or motorists, or will enhance safety;
2. The alignment of the bikeway segment is in jeopardy of being eliminated due to pending development;
3. The bikeway segment will function to reduce vehicle trips or vehicle miles travelled on local roadways;

Parks, Recreation, and Trails

4. The bikeway segment is a linkage between existing constructed bikeways; and
5. The bikeway segment will serve an identified recreational need.

Open Space Acquisition

1. The open space area includes sensitive biological or archaeological resources or provides a scenic backdrop to the city;
2. The open space area will provide a linkage between existing dedicated open space areas; and
3. The open space area provides passive recreation benefits to local residents.

Parks/Recreation Facilities

1. Based on input from the community, there is a significant demand for the park or recreational facility;
2. The proposed park or facility utilizes existing resources, such as existing city property, or existing constructed buildings; and
3. Development of the proposed park or recreation facility is a cooperative effort of the community, including non-profit organized sports groups, or schools.

SECTION 4: ISSUES AND OPPORTUNITIES

A. Existing Conditions

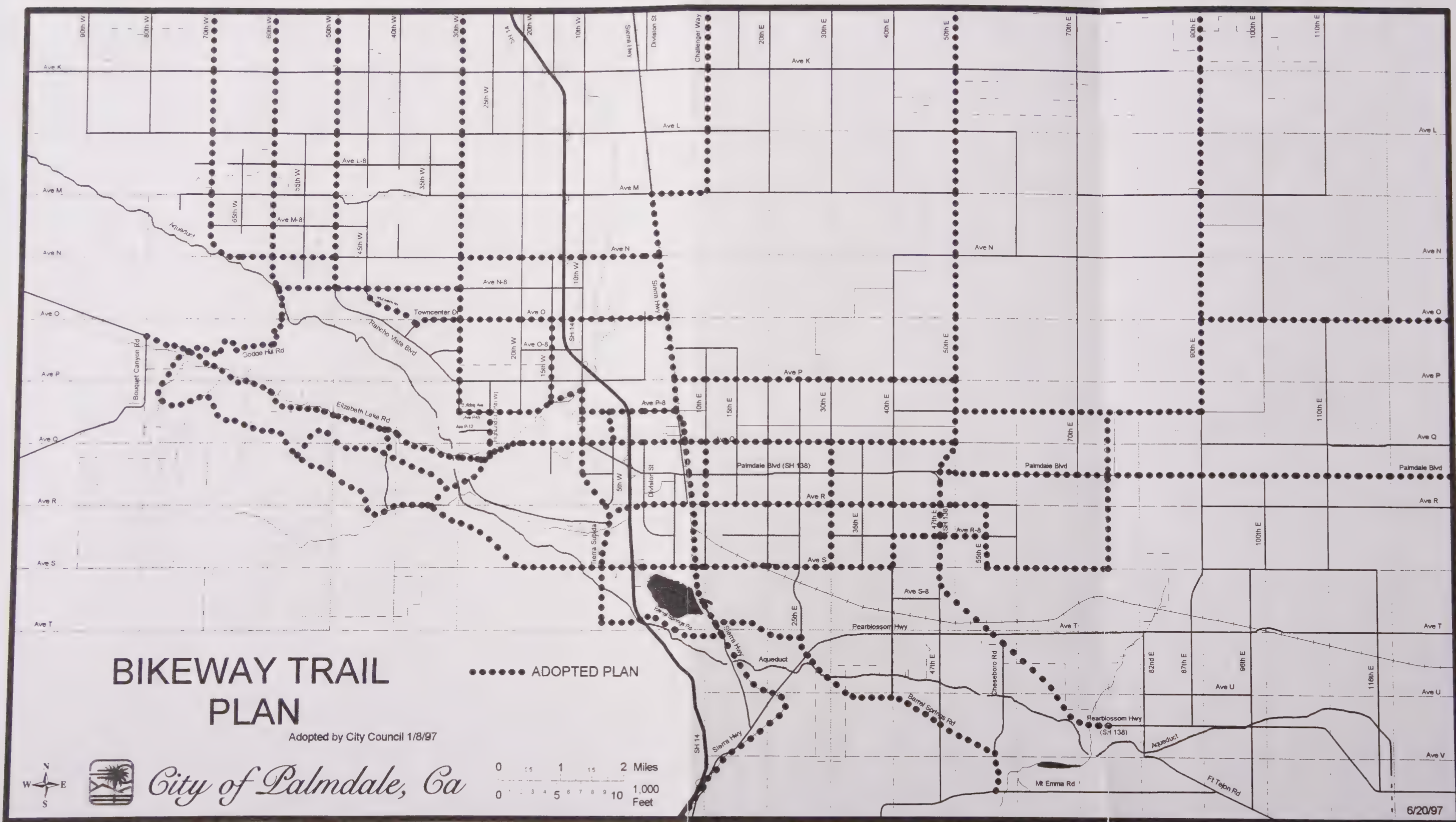
This section contains a discussion of existing parks, recreational facilities and programs, trails, and open space within and adjacent to the City of Palmdale. This assessment of existing conditions serves as a starting point from which to establish the goals, objectives and policies contained in Section 2 of this Element.

1. Parks

At the present time, there are seven developed parks in the City of Palmdale, providing 88.64 acres of developed park land. Twenty-five acres of the remaining 40 acres of Domenic Massari Park are planned for development during 1994. A description of each park is provided below. Exhibit PRT-5 shows the location of each park.

William J. McAdam Park is located on the west side of 30th Street East between Palmdale Boulevard and Avenue R. The park covers 20 acres and includes the following facilities: a swimming pool and pool building, four lighted tennis courts, two lighted softball fields, a four-acre playing field, a play lot, picnic shelters, a lighted volleyball court, and three horseshoe pits. McAdam Park is used for sports activities such as softball and soccer. McAdam pool is available for adult lap swimming, swimming lessons and aquatic play. The historic Leona Valley School house was relocated to McAdam Park. The City's annual Fall Festival and the City-sponsored concerts in the park are held there. Domenic Massari Lilac Garden is located at the south side of the park.

Melville J. Courson Park is located at the northeast corner of 10th Street East and Avenue Q-12. The area developed for park uses covers 7.5 acres and facilities include: a swimming pool and pool building, two lighted basketball courts, a lighted sand volleyball court, two play lots, a spray pool, a fieldhouse with restrooms and equipment checkout, a gazebo and picnic areas. In addition, the Parks and Recreation office building and a multi-purpose activity building are located next to the park. The Palmdale Senior Center is located across the street, at the southeast corner of Avenue Q-12 and 10th Street East. The park uses include children's day camps and swimming activities, including lap swimming, swimming lessons and aquatic play, during the summer.



Parks, Recreation, and Trails

Manzanita Heights Park is located at the northeast corner of 5th Street West and Mesa Verde Avenue. This 5-acre park includes a picnic area, two play lots, a 2.5-acre playing field and a fieldhouse with restrooms.

Desert Sands Park covers a 20-acre site situated at the southwest corner of Avenue P-8 and 3rd Street East. Facilities in this park consist of two lighted tennis courts, two lighted softball fields, two lighted volleyball courts, a lighted regulation soccer field, play lots, a group picnic area, an activity building, and a concession stand.

Joshua Hills Park is located next to Joshua Hills Elementary School at the southwest corner of Fairfield Avenue and Via Del Rio. This park site covers 3.64 acres and includes a picnic area, a play lot and playing field.

Domenic Massari Park is located at the southeast corner of 55th Street East and Avenue R. When fully developed, the park will cover 40 acres. At the present time, 15 acres have been developed for active play. Park facilities include two Little League baseball fields, two softball fields, a play field, and a park building with restrooms, concession stand and office/meeting room for use by Palmdale Little League. The second phase of Massari Park will begin construction in early 1994, covering an additional 24 acres slated to include additional play areas, soccer fields, and picnic areas. One acre of the park has been set aside as a site for development of a Los Angeles County Fire Station.

Marie Kerr Park, located on the northeast corner of 30th Street West and Avenue P. This park will include a play area, a tot lot, two lighted tennis courts, two lighted basketball courts, a lighted softball field, soccer field, a volleyball court, and a 1,200 foot activity building. In addition, the park design will serve as a stormwater detention basin, providing flood control for portions of west Palmdale. The building was constructed to serve as an emergency operations center.

Palmdale Park, located on the west side of 29th Street East, north of Avenue R-10, will be developed as a 2.5 acre park. The proposed date of development has not yet been determined.

Parks, Recreation, and Trails

Tejon Park will cover an 18.6-acre site located east of Sierra Highway and south of the alignment of Barrel Springs Road. The schedule for development of this park is unknown.

Eastside General Plan Amendment Area consists of three park sites on the east side of the City acquired through a park fee voucher program. These sites include a 20-acre site located at 60th Street East and Avenue S-8; a 10-acre site located at 72nd Street East and Avenue R-8; and a 10-acre site located at 70th Street East, north of Avenue R.

Specific Plan Areas Lastly, park sites are depicted in the City Ranch and Ritter Ranch Specific Plans, which have been adopted by the City Council. Development of these parks will occur during buildout of the specific plan areas, based on the park phasing and improvement plans contained within each document. Park construction costs in City Ranch and Ritter Ranch Specific Plans will be borne by the developers of these projects. Table PRT-3 illustrates the park facilities and the park phasing schedules included in the development agreements for the Ritter Ranch and City Ranch Specific Plan developments.

2. Recreation Facilities

In addition to its parks, the City provides recreational facilities and programs to the residents of Palmdale. The existing recreational facilities operated by the City are described below, along with a description of recreation programs.

Desert Aire Golf Course is a 45-acre, nine-hole regulation golf course located at 3620 Avenue P, and is operated by the City by means of a lease agreement with the City of Los Angeles Department of Airports. The golf course includes a pro-shop, restaurant and bar, a lighted driving range and golf cart rentals.

The **Richard B. Hammack Center** is a 30,000 square-foot indoor recreation facility of which 19,000 square feet are developed and contain a gymnasium area to accommodate sports activities, a lounge area, a food court area and a table game area. In addition, the Boys and Girls Club of America has developed an additional 4,000 square feet of this facility, leased to it by the City. The Hammack Center is located at 815 East Avenue Q-6.

TABLE PRT-3

PARK CONSTRUCTION AND PHASING
RITTER RANCH SPECIFIC PLAN AND CITY RANCH SPECIFIC PLAN

Park Site	Size (Ac)	Type	Typical Facilities*	Date of Commencement
RITTER RANCH PARK SITES:				
2B	23	Community	2 basketball courts 2 soccer fields 2 tennis courts 2 volleyball courts 1 playground 1 tot lot 1 covered group picnic area 10 individual picnic area 1 activity/pool building 1 outdoor olympic size pool	Concurrent with the issuance of a building permit for the 900 th residential unit in Planning Area 1.
4C	15	Community	2 basketball courts 4 lighted softball fields or 2 lighted softball fields and 1 soccer field 2 tennis courts 2 volleyball courts 1 playground 1 tot lot 1 covered group picnic area 5 individual picnic areas 1 activity building	Concurrent with the issuance of a building permit for the 400 th residential unit in Planning Area 4.
5F	5	Neighborhood	1 soccer field 2 tennis courts 1 tot lot 3 individual picnic sites	Concurrent with the issuance of a building permit for the 250 th residential unit in the aggregate within Planning Units 5D, 5V, and 5W.

*Typical Facilities for park sites within the Ritter Ranch Specific Plan are those which may be constructed according to the Specific Plan. All facilities will be reviewed and approved by the Director of Parks and Recreation. Typical Facilities for park sites within the City Ranch Specific Plan are those described in the Development Agreement between the City and Kaufman and Broad.

**Parks, Recreation,
and Trails**

TABLE PRT-3 (continued)

Park Site	Size (Ac)	Type	Typical Facilities*	Date of Commencement
5H	6.5	Neighborhood	1 tot lot 3 individual picnic sites	Concurrent with the issuance of a building permit for the 250 th residential unit in the aggregate within Planning Units 5J and 5K.
5T	15	Community	2 basketball courts 4 lighted softball fields 2 tennis courts 2 volleyball courts 1 tot lot 1 covered group picnic area 5 individual picnic areas 1 gymnasium	Concurrent with the issuance of a building permit for the 1,000 th residential unit in Planning Area 5.
5U	5	Neighborhood	1 tot lot 3 individual picnic sites	Concurrent with the issuance of a building permit for the 250 th residential unit in Planning Unit 5X.
6H	10	Neighborhood	1 tot lot 1 soccer field 3 individual picnic sites library facility site	Concurrent with the issuance of a building permit for the 600 th residential unit in the aggregate within Planning Units 6B and 6F.
6L	5.5	Neighborhood	1 tot lot 3 individual picnic sites	Concurrent with the issuance of a building permit for the 200 th residential unit in Planning Unit 6K.

*Typical Facilities for park sites within the Ritter Ranch Specific Plan are those which may be constructed according to the Specific Plan. All facilities will be reviewed and approved by the Director of Parks and Recreation. Typical Facilities for park sites within the City Ranch Specific Plan are those described in the Development Agreement between the City and Kaufman and Broad.

TABLE PRT-3 (continued)

Park Site	Size (Ac)	Type	Typical Facilities*	Date of Commencement
6N	5.5	Neighborhood	1 tot lot 3 individual picnic sites	Concurrent with the issuance of a building permit for the 300 th residential unit in the aggregate within Planning Units 6A, 6C, and 6D.
6V	5	Neighborhood	1 tot lot 3 individual picnic sites	Concurrent with the issuance of a building permit for the 200 th residential unit in the aggregate within Planning Units 6J, 6Q, and 6S.
CITY RANCH PARK SITES:				
18A	5	Neighborhood	2 multi-use ball fields 4 picnic sites basketball half court play area	Concurrent with construction of the adjacent elementary school or upon issuance of the certificate of occupancy for the 350 th home in aggregate within Planning Areas 16, 17, or 19A, whichever occurs first.
22	10	Neighborhood	Multi-use ball fields 1 sand volleyball court play area basketball half court 4 picnic sites	Concurrent with the issuance of the certificate of occupancy for the 500 th home in the aggregate within Planning Areas 21, 23, or 24.

*Typical Facilities for park sites within the Ritter Ranch Specific Plan are those which may be constructed according to the Specific Plan. All facilities will be reviewed and approved by the Director of Parks and Recreation. Typical Facilities for park sites within the City Ranch Specific Plan are those described in the Development Agreement between the City and Kaufman and Broad.

**Parks, Recreation,
and Trails**

TABLE PRT-3 (continued)

Park Site	Size (Ac)	Type	Typical Facilities*	Date of Commencement
28B	5	Neighborhood	Play area 4 picnic sites Multi-use ball fields Basketball half court	Concurrent with construction of the adjacent elementary school or upon issuance of the certificate of occupancy for the 350 th home in aggregate within Planning Areas 28A, 30A, or 31, whichever occurs first.
35	3.8	Neighborhood	2 picnic areas	Concurrent With The Construction Of The Elementary School In Planning Area 11.
1, 9, and 10	119	Community	18 picnic sites Amphitheater Par course Gymnasium Lighted tennis courts Equestrian trail Lighted ball fields Play areas Sand volleyball court Basketball courts Olympic sized pool Pool building Soccer fields	Park construction will be phased. Phase I will commence construction with the issuance of the first building permit in either Planning Area 15 or Planning Area 20. The final phase (Phase 5) will be completed by the issuance of the 3,500 th certificate of occupancy.

*Typical Facilities for park sites within the Ritter Ranch Specific Plan are those which may be constructed according to the Specific Plan. All facilities will be reviewed and approved by the Director of Parks and Recreation. Typical Facilities for park sites within the City Ranch Specific Plan are those described in the Development Agreement between the City and Kaufman and Broad.

The **Palmdale Cultural Center** is located at 704 E. Palmdale Boulevard. This 19,000 square-foot facility is available for use by the public. The Cultural Center contains an auditorium with a stage and kitchen, and three meeting rooms.

The Palmdale **Senior Center** is located at 1002 E. Avenue Q-12. The Senior Center includes a kitchen, multi-use hall, a meeting room and a lounge. The facility is used primarily for senior citizen activities.

The **Antelope Valley Community Arts Center** (Maryott Auditorium) is currently being remodeled to provide a 348-seat theater. Once completed, this facility can accommodate local community theater performances, small concerts or musical productions, and other similar events.

3. Recreation Programs

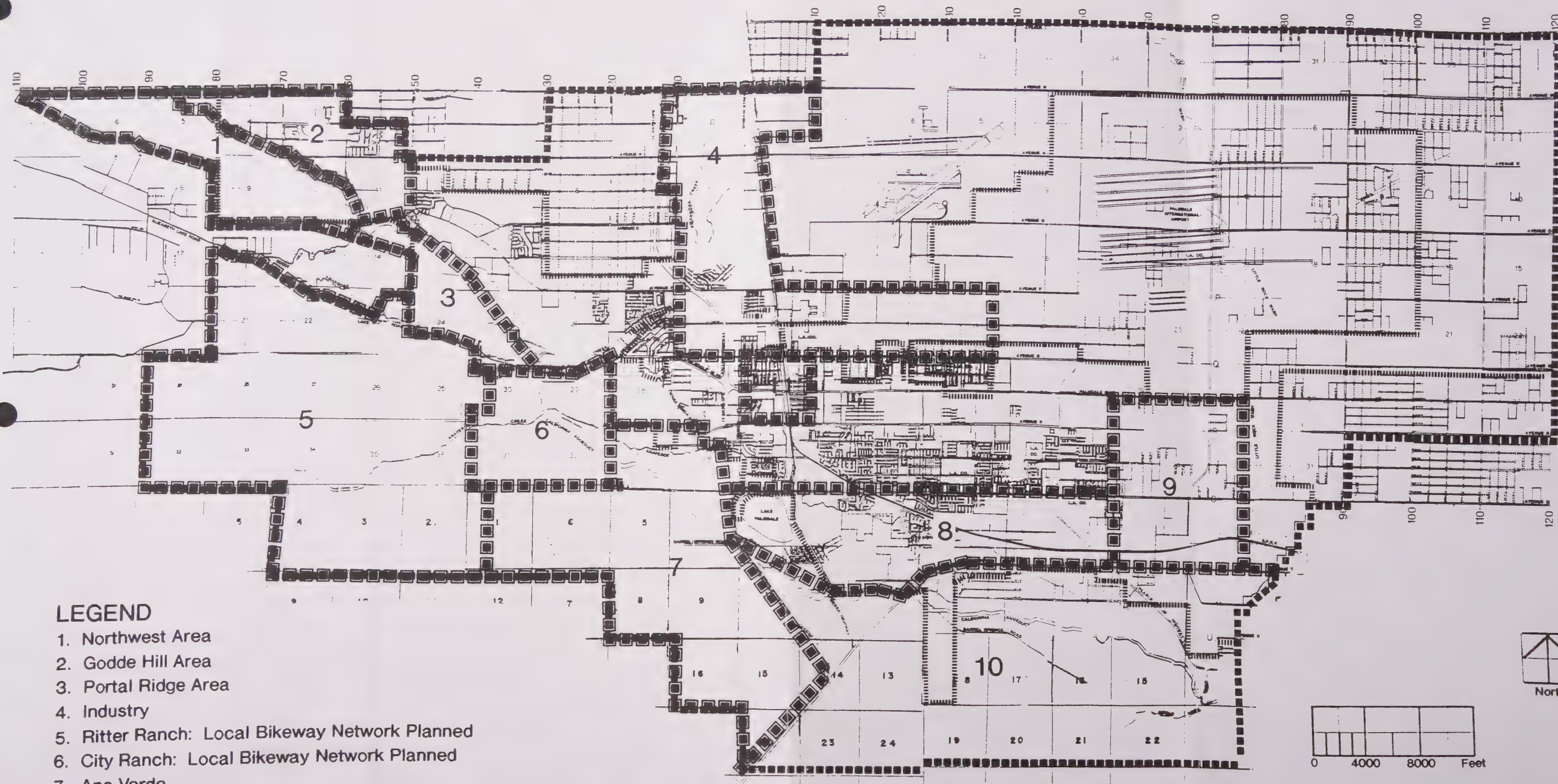
The City Parks and Recreation Department currently offers a broad range of recreational programs for Palmdale residents. Programs for children, youths, teens, adults and seniors are offered on a regular basis. The range of programs is as broad as budget and staffing allow, and typically include the following:

Children: Year-round day camp, swimming lessons, recreational swimming, dance classes, cooking classes, craft classes, basketball clinics, junior golf, soccer and t-ball, tiny tot programs, special events and supervised park and after school programs.

Youth/Teens: Excursions to various events, novice swim team, karate, volleyball, basketball and flag football, cheerleading clinic, junior high dances, help with homework, teen twilight tournaments, job fair, junior golf program and midnight basketball. The Youth Council was established by the City Council to advise on matters regarding programs and facilities for youth and teens.

Adult: Adult swim lessons, lap swimming, karate, dog obedience, oil painting, country/western dance, excursions, golf, adult exercise, standard first aid and CPR, softball leagues, basketball leagues and volleyball leagues.

Seniors: Senior Citizen swimming, cards, exercise, dancing, lunch program, various senior services and excursions.



LEGEND

1. Northwest Area
2. Godde Hill Area
3. Portal Ridge Area
4. Industry
5. Ritter Ranch: Local Bikeway Network Planned
6. City Ranch: Local Bikeway Network Planned
7. Ana Verde
8. Joshua Hills
9. Eastside
10. Barrel Springs
11. Downtown

PRT-40

EXHIBIT PRT-4

Local Bikeway Planning Areas
Palmdale General Plan
Adopted by City Council

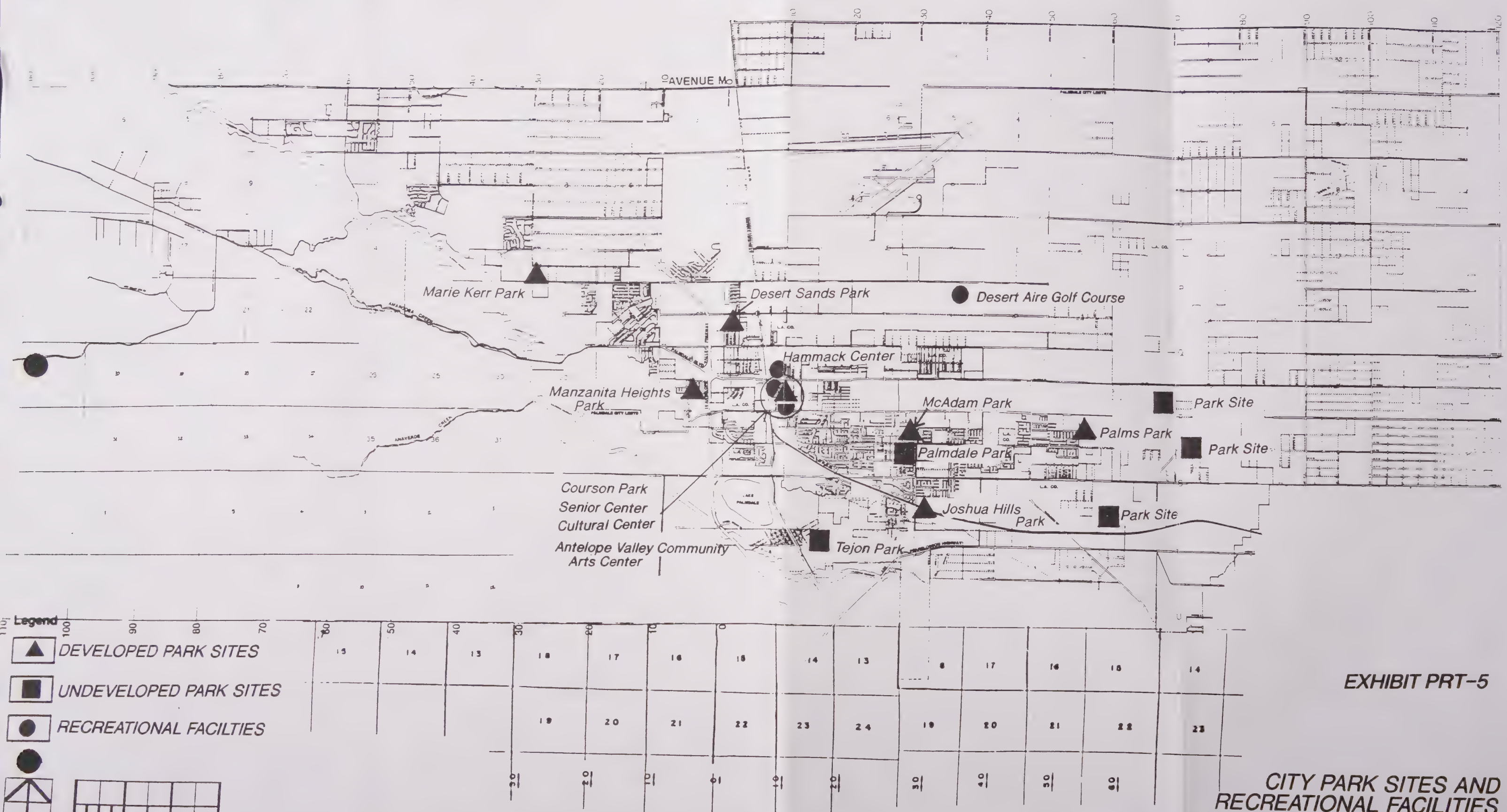


EXHIBIT PRT-5

CITY PARK SITES AND
RECREATIONAL FACILITIES
Palmdale General Plan
EXHIBIT PRT-1

Adopted by City Council
3/09/94

The City Parks and Recreation Department also coordinates Concerts in the Park, a Fourth of July celebration, the Fall Festival, a Christmas crafts fair, softball tournaments, 5/10k run, Memorial Day weekend concert and family picnic, Starlight Concert, Arco Make-a-Circus, Bassmaster Kids Casting Contest, and Pepsi Hot Shot Contest.

4. Other Public Recreational Facilities

In addition to the recreational opportunities provided by the City, there are other public facilities and public lands which provide recreational benefits to Palmdale residents, as described below and depicted on Exhibit PRT-6.

Schools: Currently there are twenty-four public schools in the City of Palmdale: seventeen elementary schools, five middle schools, and two high schools. These schools, as well as the schools located in Lancaster and unincorporated portions of the County, offer areas for active recreation for school students. However, access to some schools and/or school recreation facilities is limited during hours when schools are closed, and restricted to enrolled students during school hours. The City maintains agreements with the High School District and the Westside Union School District for joint use of school and park facilities. Although no formal agreement exists with the Palmdale School District, the City and the District do cooperate to provide joint use of facilities.

County Parks: Los Angeles County maintains a number of neighborhood and community parks in the incorporated portions of the Antelope Valley. These parks are designed to serve the communities surrounding the City; however, City residents can enjoy these facilities as well. At the present time, several of these parks are facing reductions in services or closure due to County budget constraints.

George Lane Park is located at 5520 West Avenue L-8 in Quartz Hill and covers 15 acres. The facility includes a recreation building, game courts, a picnic area, a play lot and a swimming pool.

Jackie Robinson Park, located at 8773 East Avenue R in Littlerock, covers a 9.2 acre site. The park provides a community building, picnic area, and game courts.



Parks, Recreation, and Trails

Everett Martin Park provides a swimming pool and pool building on a 6.7 acre site located at 35548 North 92nd Street East, in Littlerock.

Pearblossom Park is located at 33922 121st Street East. The 7.8 acre park site provides a recreation building, game courts, picnic areas, play lots and an outdoor stage.

Regional Parks: Nearby County regional parks include Vasquez Rocks County Regional Park and Devil's Punchbowl County Regional Park. These facilities provide passive recreation opportunities such as hiking and nature study. Apollo Park in Lancaster provides picnicking and fishing. However, like the County parks described above, reduced hours, reduced services or possible closure threaten these County regional parks because of cutbacks to the County's budget.

State Parks: Antelope Valley Indian Museum State Park, Saddleback Butte State Park and the California Poppy Preserve are three state facilities located near Palmdale. These parks allow passive recreation opportunities, including hiking, wildflower viewing, and picnicking. The Antelope Valley Indian Museum offers interpretive displays of the valley's prehistoric culture and natural history.

Forest Service Open Space: Angeles National Forest covers over 600,000 acres of public lands in the Transverse Range, including portions of the San Gabriel and Sierra Pelona Mountains, located south of Palmdale. Recreational opportunities on Forest Service lands includes camping, hiking, boating and swimming, picnicking, skiing, and target shooting. According to the Angeles National Forest Land and Resources Management Plan, 5 million visitors annually use the forest for recreational pursuits.

Alpine Butte Wildlife Preserve: This 180-acre site is owned by Los Angeles County. The site is presently undeveloped, and access is limited. Hiking and nature study are the primary recreational opportunities at this site.

California Aqueduct: The California Aqueduct traverses the southern portion of the Palmdale Planning Area. The Aqueduct is open at certain locations for fishing. However, at the present time, the bikeway along the portion of the Aqueduct within the Antelope Valley is closed to public access. Since portions of

Parks, Recreation, and Trails

this bikeway are being opened elsewhere for bicycling, this facility may eventually be available to local residents for recreational use.

5. Private Recreational Facilities

In addition to the public recreation facilities described above, there are a number of private recreation options in and around Palmdale. These private recreational facilities, shown on Exhibit PRT-7, include the following:

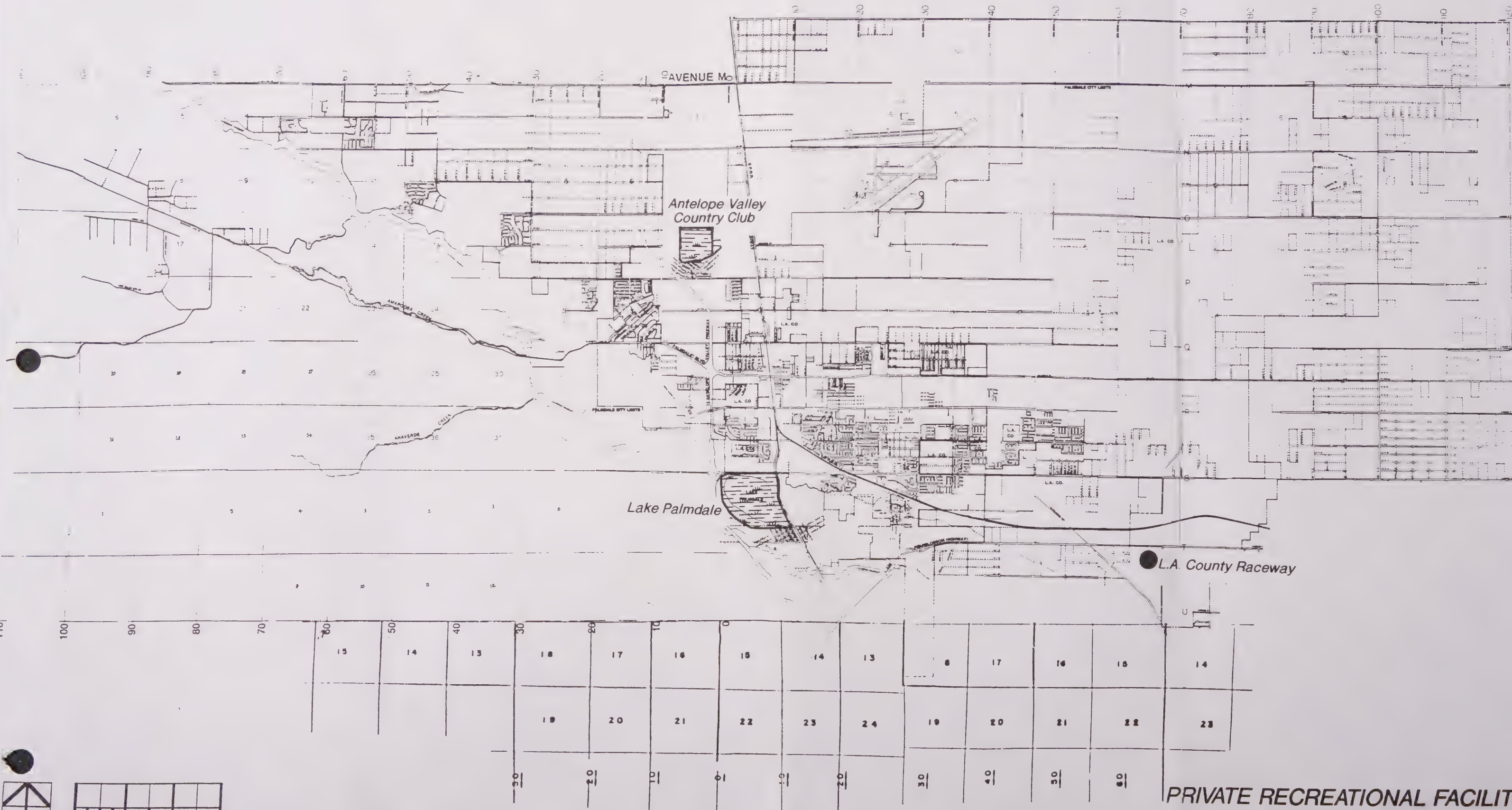
The Antelope Valley Country Club is located at 39800 Country Club Drive. This private facility includes an 18-hole golf course, swimming, and tennis. Access is restricted to country club members and guests.

Lake Palmdale is a 300-acre water reservoir owned by Palmdale Water District. This lake, which provides recreational boating and fishing, is controlled by the Fin and Feather Club and is available for use by members only.

Los Angeles County Raceway is located south of Avenue T, between 65th and 70th Street East. Raceway events, such as drag racing and motorcycle events, usually occur during summer months.

Palmdale also supports the following types of private business: batting cages, stables, gyms/health clubs, video arcades, bowling alley, and billiards. Several of the local service organizations sponsor bingo games, either on a regular basis or from time to time as a fund raising activity. Also, the YMCA of the Antelope Valley, located on Avenue J-8 in Lancaster, offers a variety of recreational programs. Palmdale youth participate in various organized sports programs such as Little League baseball, AYSO, and youth football, among others.

Additional planned facilities in Palmdale include golf courses within the Ritter Ranch, City Ranch and Rancho Vista Specific Plan areas. These courses, once developed, may be private or semi-private. The Ritter Ranch Specific Plan also proposes to develop an equestrian center and swim club.



6. Trails

Although the existing constructed trail network in the Antelope Valley is limited, an extensive trail system is planned by L.A. County and the City of Lancaster. Existing and planned trails in Palmdale are shown on Exhibit PRT-2 and are described below.

Bike Paths: At the present time, approximately 7.5 miles of on-street (class II) bike paths have been designated throughout the City.

Trails Proposed in Approved Specific Plans: Extensive trails systems have been proposed throughout the Ritter Ranch and City Ranch Specific Plans. Bikeways, pedestrian paths and equestrian trails will provide for access throughout these planned communities. Construction of these trails will be phased with development of these specific plan areas.

Trails from Lancaster: The City of Lancaster General Plan contains a Master Trails Plan showing numerous trail connections at the Lancaster/Palmdale boundary. These proposed trails include L.A. County North County Trail System segments, bikeways, urban trails and rural trails. The Lancaster General Plan also gives cross-sections for the various trail types. These cross-sections will be an important consideration in trail design at the interface between Palmdale and Lancaster.

North Los Angeles County Trails System: Los Angeles County has designated an extensive system of multi-use trails throughout the North County area. Many of the proposed trail alignments connect to existing trails in the Angeles National Forest. Once it is fully constructed, this system of trails will provide an extensive network for recreational opportunities. To provide funds for the maintenance of these trails, Los Angeles County has assessed a fee for use of those portions of the L.A. County trails system which lie outside of L.A. County Regional Parks. This fee--\$26.00 annually or \$6 for a three day pass--may discourage full use of the trails system by recreationists.

Trails Proposed by the Antelope Valley Trails, Recreation, and Environmental Council (AVTREC): AVTREC has worked diligently with Los Angeles County, and the Cities of Palmdale and Lancaster, to ensure the development of a cohesive multi-use trails network throughout the Antelope

Parks, Recreation, and Trails

Valley. This group has identified a number of gaps within the existing trails plans and has suggested possible trail alignments to improve the connectivity of the proposed regional system. Several of these linkages traverse the City of Palmdale, connecting proposed County trails to trails in Lancaster or to destinations in Palmdale.

7. Implementation of Park Programs

Park acquisition and development costs are partially offset by payment of park impact fees by new development. Currently, park impact fees are: single family dwelling units, \$804 per bedroom; duplex or triplex dwelling units, \$879 per bedroom; and apartment dwelling units, \$828 per bedroom. These fees are adjusted annually according to the Consumer Price Index. The Director of Parks and Recreation has estimated that these fees provide approximately 50% of the funds needed to develop new park facilities in the City. The remaining funds for park acquisition and construction have come from the City's General Fund. These funds are allocated through the City's Capital Improvement Program. In addition to construction and acquisition of park lands, the City is also responsible for maintenance of existing parks and funding recreational programs.

Costs for City-sponsored recreation programs are partially recovered by charging nominal fees for the use of facilities, or for enrollment in programs. According to the City's fee schedule, the Director of Parks and Recreation is authorized to charge a reasonable fee for recreation programs.

B. OPPORTUNITIES/CONSTRAINTS

1. Existing Opportunities

Vacant Land/Land Constrained From Development: Presently, approximately 79% of Palmdale's Planning Area is vacant. This large proportion of vacant land presents a tremendous opportunity to reserve land for parks, and/or open space. Some of this vacant land is constrained from future development by seismic hazards, flooding, or steep topography. The San Andreas rift zone and flood zones associated with Little Rock and Big Rock Wash provide corridors through which trails and an open space network can be established.

Potential Funding Sources:

Park Fee Voucher Program: The City has recently acquired three park sites on the City's east side through a park fee voucher program. This program, implemented specifically for the area affected by the Eastside General Plan Amendment, allowed property owners to dedicate land to the City for use as a park in exchange for the value of the land in park fee vouchers. Park fee vouchers can then be redeemed at the time of issuance of building permits to the City in lieu of payment of park impact fees. Vouchers may be used by the property owner or sold to other developers. The benefit of this program is that the City can acquire park sites at a time when vacant land is plentiful, instead of collecting park impact fees as development occurs and then trying to acquire the limited amount of open space which remains. This program has been effective in the Eastside GPA area; however, further study is needed to determine whether the program should be expanded to other areas of the City.

Public Financing Districts: There are several types of public financing districts available for use by the City to fund improvement of parks, trails and recreational facilities. To create a public financing district, the City would identify an area which would benefit from construction of an improvement such as a park. This area would form the district. The property owners within the district would then pay for infrastructure improvements such as parks. To pay for these improvements, the City would issue bonds which would be repaid by liens placed on the property included in the financing district. The bonds, and hence the cost of the improvements, are paid off over a period of years by the landowners within the district.

Assessment Districts are one form of public financing. In an assessment district, a fixed amount is placed as a lien against each parcel of land within the district. The amount of the lien is determined by the degree that parcel would benefit from the proposed improvements. The City has not used this form of financing for construction of parks; however, creation of an assessment district specifically for providing parks, trails and recreation facilities, either city-wide or for a specific area, should be explored in the future.

Parks, Recreation, and Trails

Community Facilities Districts (CFD) are a second form of public financing. In a CFD, a special tax called a Mello-Roos tax is used to pay for public improvements, including parks. Mello-Roos taxes can also finance the maintenance costs of parks, parkways and open space, as opposed to Assessment District's which can only be used to finance acquisition and construction of improvements. The City has not used CFD's for park construction. However, it is likely that the parks within the Ritter Ranch project will be constructed using this financing mechanism.

Financing Allowed by the Quimby Act: The Quimby Act (Section 66477 of the Government Code) was adopted by the State Legislature in 1965 to expressly authorize cities to require dedication of land for parks as a condition of approval for residential development. The act is one of several provisions of state law that empower cities to acquire park land through dedication or payment of in lieu fees. In summary, the Quimby Act allows cities to collect fees or require dedication of land up to 3 acres per 1,000 population from new residential development for parks and recreation purposes. These provisions are similar to the Ordinance 505, the Park Land Dedication Ordinance, currently in place in Palmdale.

Joint Use of Facilities: Marie Kerr Park, located at 30th Street West and Avenue P, is the first park facility in the City to be used both for active recreational uses and as a storm water detention basin. This type of joint use allows the City to spread the cost of the land over several programs, which in turn allows the construction of more public facilities, city-wide. For instance, instead of purchasing land for a park, and purchasing additional land for a detention basin, the City purchases a single site which provides both public services. This type of joint use of facilities may facilitate acquisition of park land in other locations of the City as well. Joint use of other recreational facilities is an option which should be explored. Other joint use combinations include joint use of schools and parks, locating fire stations in parks, and using utility corridors for drainage facilities and trails.

Community Support: At the present time, community support for parks, trails, open space and recreational programs appears to be on the rise. Continued support from the community for recreational amenities will

ensure that provision of these services continues to be one of the City's priorities.

Land Use Interface: There are locations around the City where adjacent land use designations may create future land use interface conflicts. These conditions exist where land use designations allow certain uses which may not be compatible. For example, on the City's east side along Little Rock Wash, the General Plan allows sand and gravel quarries; however, adjacent to this use, single family residential development will be allowed. Where this situation occurs, it may be advisable to provide a setback or buffer to reduce the noise and dust which could result from a quarry. In these buffers, certain recreational amenities may be constructed, such as green belts, trails and par courses.

Acquisition of Public Lands Not Owned by the City: Located throughout the City are vacant parcels owned by various public agencies. These sites include undeveloped school sites, parcels owned by Los Angeles County for a variety of purposes, and a few acres of public lands under the jurisdiction of the U.S. Bureau of Land Management. There may be opportunities for the City to acquire some of these parcels for use as park sites. On occasion, a public agency will determine that the need to develop a site for a particular purpose no longer exists and the site is deemed as surplus. Should this occur, the City could then negotiate with that agency for acquisition of the surplus parcel for use as a park.

2. Existing Constraints

Cost to Acquire Park Land and Build Parks: The costs to acquire and build parks is the single most serious constraint to expanding the recreational opportunities offered by the City. Presently, park impact fees provide only 50% of the funds needed to acquire and build parks. The remaining funding must come from the City's General Fund. Although General Fund monies have been used for park development at relatively high proportions, the rate of development of active recreation opportunities is far behind the rate at which the City is gaining population. According to the standard set in Objective PRT1.1, and reiterated in the Public Services Element, of five acres per thousand population, the City currently needs 448.6 acres of park land, of which 76.14 acres are

Parks, Recreation, and Trails

developed at this time. When construction of Marie Kerr Park is completed, the deficit will have been reduced by 20 acres; however, as the City's population increases, so will the need for active park acreage.

Cost to Maintain Parks: Once parks are acquired and constructed, the City is responsible for park maintenance. Park maintenance represents a significant expense to the City in terms of both manpower and hard costs. As park acreage increases, maintenance expenses will increase as well. There is currently no funding mechanism, outside of the City's General fund, to cover park maintenance costs. Other funding alternatives, such as user fees, may need to be explored in the future.

Land Use Interface: While land use interface issues often represent opportunities to develop greenbelts or park sites, they can sometimes represent constraints as well. Large, regional park facilities could include uses such as amphitheaters or lighted fields which could generate noise, light and traffic which could impact quiet residential neighborhoods. Therefore, adjacent land uses are a consideration when establishing locations and facilities for parks.

PARKS, RECREATION AND TRAILS ELEMENT

APPENDIX A

In addition to the standards listed in Table PRT-2, the following standards shall be applied to construction of multi-use trails:

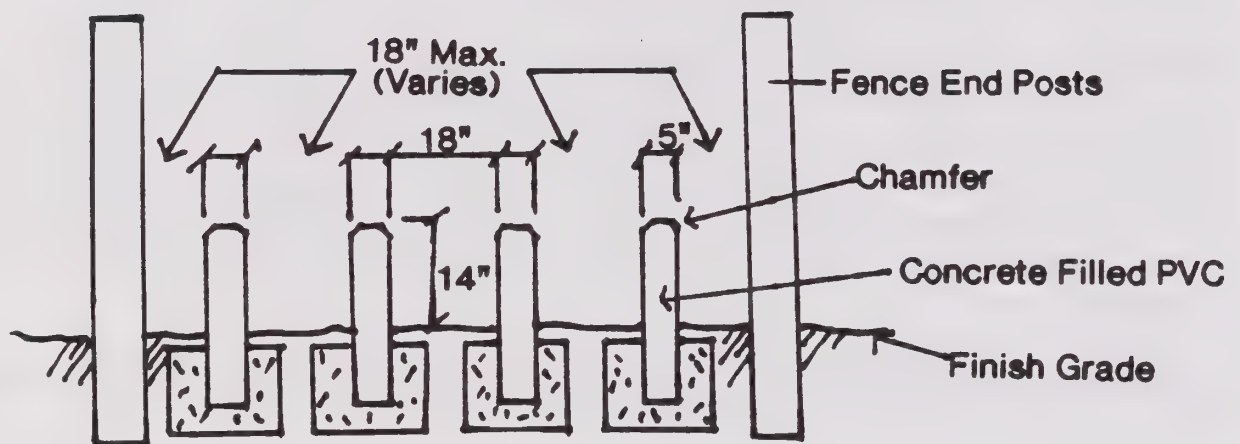
Trail Entrances: Trail entrances shall be designed to provide for equestrian, bicycle and pedestrian uses, and shall discourage motor vehicle and motorcycle access. Trails shall be provided with a means of access for service vehicles only where no other service vehicle access is available (see Figure 1).

Trails Fencing Construction Specifications: Fences shall be designed with two horizontal rails, made of PVC material, or a substitute material accepted by the Director of Planning, and shall be placed on both sides of the trail, set at four feet above final trail tread grade. Fences shall follow the grade of the trail tread, and all posts shall be leveled and in line with one another. All fencing shall be located to provide a minimum of one foot of clearance from vegetation or other features adjacent to the trails (see Figure 2).

Off Road Vehicle Barriers: Off road vehicle (ORV) barriers shall be placed where there is a break in the fence line that would allow vehicle access (see Figure 3).

Signs: Trail identification signs shall be placed at trail entrance and exit points, at street crossings, and at locations determined necessary for the designation of the trail. Hazard signs shall be placed wherever there is a potentially significant safety hazard to trail users.

Street Crossings: Crossings shall be at grade with appropriate street striping and transverse signage for trail users. The roadway shall be similarly provided with appropriate signage, transverse to the roadway, to identify the trail. To prevent slipping, raked finish concrete may be placed across the roadway, equal in width to the trail tread. ORV barriers shall be recessed 65 feet from the street entrance.

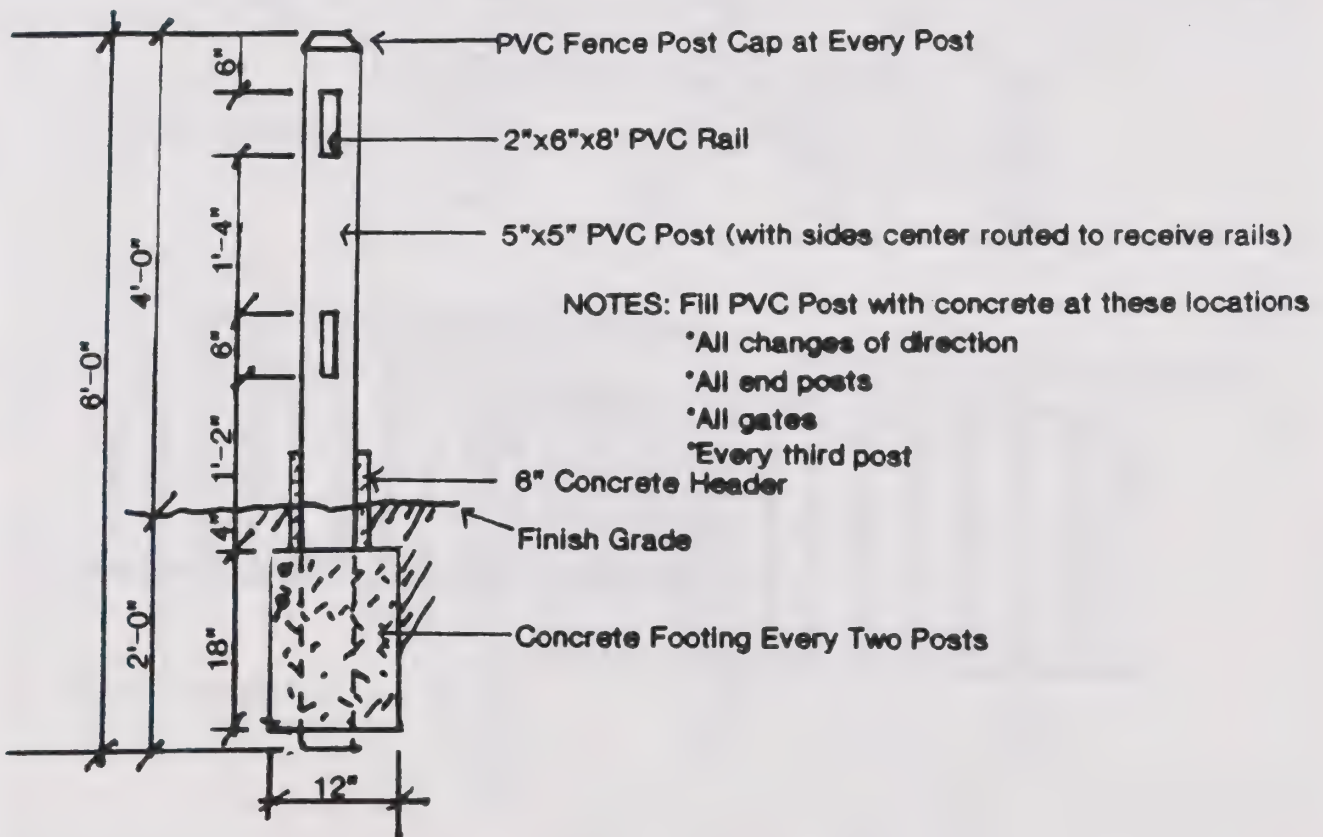
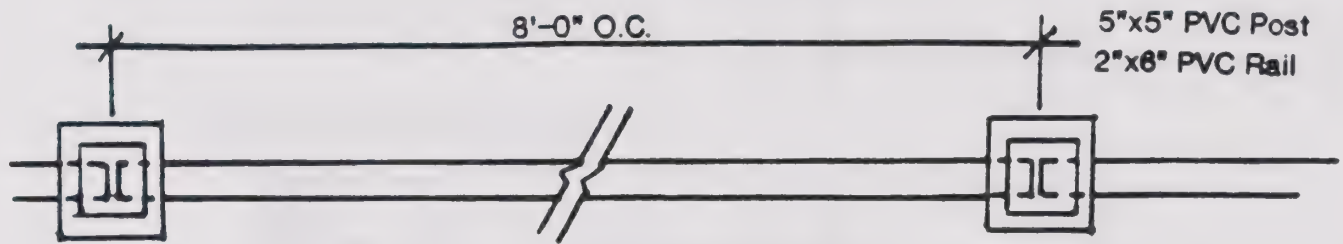


STEP-THROUGH DETAIL

Figure 1

CITY OF PALMDALE

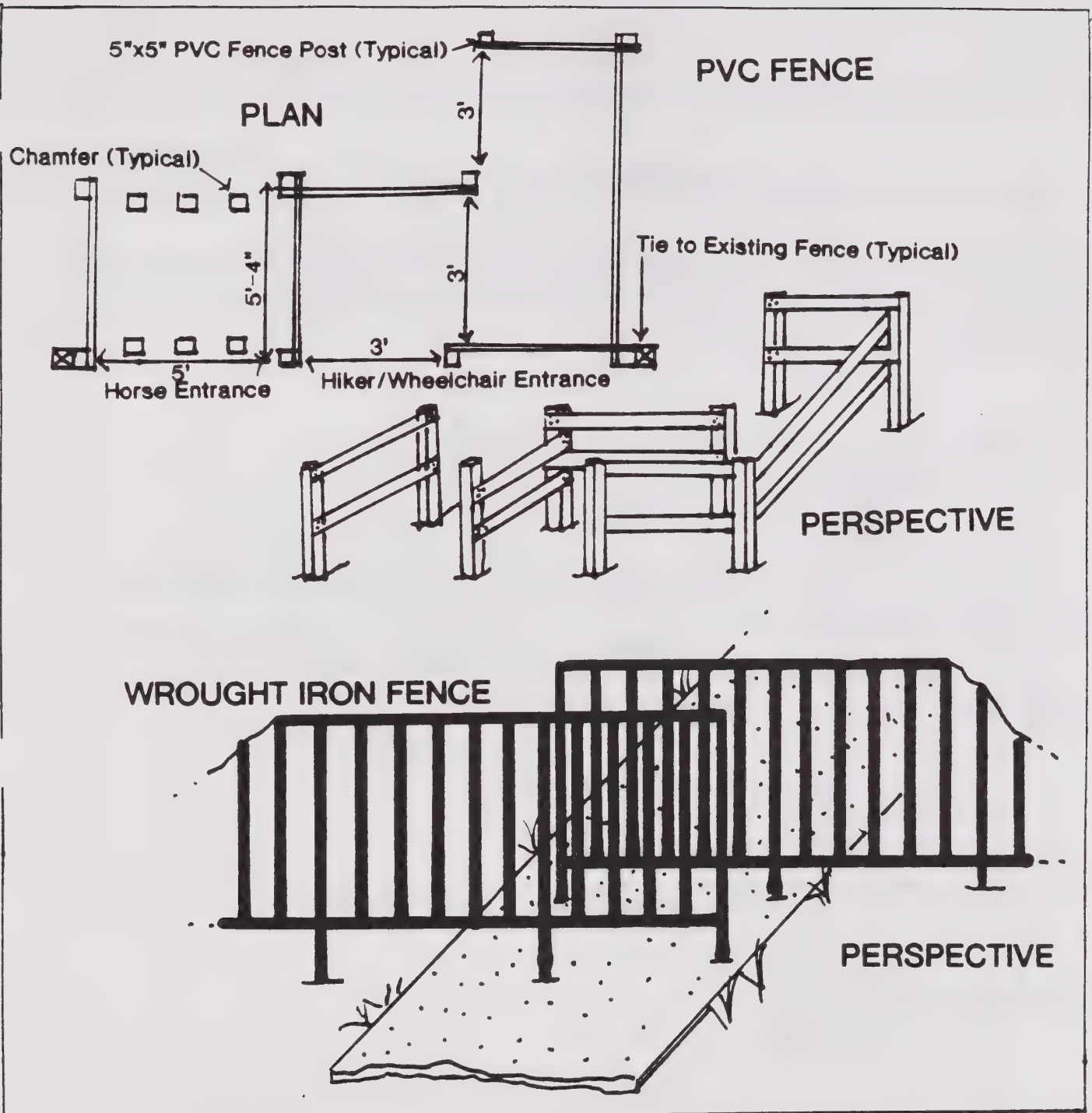




TWO RAIL PVC FENCE DETAIL

Figure 2

CITY OF PALMDALE



TYPICAL ENTRANCE BARRIERS

Figure 3

CITY OF PALMDALE

APPENDIX B

LOCAL OPEN SPACE PLAN

LOCAL OPEN SPACE PLAN

In order to assist in preserving areas of open space and open space corridors, staff has compiled the following General Plan objectives and policies to serve as the City's Local Open Space Plan. These objectives and policies directly apply to open space and development in areas where open space can be preserved. They represent only a portion of the goals, objectives, and policies contained in the General Plan, and they are provided in this format only for convenience. The General Plan also contains other goals, objectives, and policies which peripherally apply or may be relevant to the topics listed below; therefore, the General Plan should be consulted for a complete listing of all goals, objectives, and policies which affect open space.

A. *GROWTH SHAPING, HAZARDS, SAFETY*

1. **Shaping Urban Growth**

Policy L6.1.1: On the Land Use Map, designate land for public uses to meet community needs for schools, parks, community facilities, open space, utilities, and infrastructure. The following land use designations have been established on the land use map to meet these needs.

- a. **Open Space:** The Open Space (OS) designation is intended to identify and reserve land for both natural and active open space uses, including City parks. The designation identifies existing and acquired but not yet built park sites within the community, as well as lands dedicated to the City of open space purposes. The designation is appropriate to protect sites with physical limitations such as flood plains, very steep terrain (slopes steeper than 50 percent), or significant natural resources. Typical uses permitted within the open space designation include recreational uses, horticulture, agriculture, animal grazing, or similar uses.

Policy ER1.1.4: Develop appropriate standards for development clustering and density transfer, in order to maintain areas of scenic open space throughout the Planning Area.

Policy ER1.1.5: Utilize the City's discretionary land use approval process to locate and retain areas for use as open space through dedication or other legal means. Develop criteria and guidelines to identify areas that should be so protected.

Policy ER3.1.4: Encourage density transfers where appropriate, in order to facilitate development in more suitable locations while retaining significant natural slopes and areas of environmental sensitivity as natural open space.

Policy ER6.1.3: Require adequate buffering measures between land uses within the MRE designation and incompatible uses outside of, and adjacent to the MRE areas.

Policy L1.3.1: On the Land Use Map, designate land uses in consideration of topography, environmental constraints, availability of infrastructure, and intensity of adjacent uses.

Policy L1.3.2: Adopt standards for transition areas between potentially incompatible uses.

Policy L.6.2.2: Provide a 1,000 foot buffer between the Antelope Valley landfill and future residential developments.

Policy L4.2.9: Avoid designating land for commercial uses simply because residential uses appear inappropriate. Consider other alternatives, including but not limited to the following:

- b. Considering alternative uses such as industrial, open space, public facilities, or commercial office.

Policy PRT3.2.1: Adopt the open space approval guidelines, attached as Appendix A, to ensure that development maximizes the potential to preserve open space and open space corridors.

Policy PRT3.2.2: Where appropriate, require the preservation of open space areas or open space corridors in areas which are master planned for development.

Discussion: Development projects in portions of the City may be required to contribute to establishing open space corridors by setting aside land which may be unsuitable for development due to faults, flood hazard, or extreme topography. Specific Plans in hillside areas will be required to include more detailed objectives and programs to provide open space corridors and/or areas.

2. Hazards and Safety

Policy ER1.1.6: Integrate natural hazard areas, such as floodways, seismic fault zones, and unstable soils, into the open space network in order to ensure public health, safety, and welfare while preserving open space.

Objective L1.4: Adopt land use policies which minimize exposure of residents to natural hazards, protect natural resources, and utilize land with limited development potential for open space and recreational uses where feasible.

Policy S1.3.3: Provide fire-resistant landscaped buffer zones between high risk fire hazard areas and urban development, and restrict access from development into the open space areas during periods of high fire risk.

Policy L1.4.2: Establish the following standards in and adjacent to Alquist-Priolo Special Studies zones and active fault zones, in order to protect residents, property, and infrastructure systems from damage by seismic activity:

- a. Restrict development of habitable structures in these zones in accordance with requirements of State law.

Objective PRT3.2: Develop an open space network through preservation of corridors along fault zones, natural drainage courses, and in hillside areas to connect with the large areas of open space designated on the General Plan Land Use Map.

Discussion: The General Plan identifies those portions of the Planning Area which are subject to natural hazards such as wildfires and seismic hazards. Exhibit S- of the General Plan denotes areas susceptible to wildfire risk. In general, these areas are the slopes and hillsides located on the southside of the Planning Area. The presence of the San Andreas Rift Zone in the City's Planning area means that significant seismic hazards exist. Setbacks from fault traces can be used for open Space corridors or trails.

B. RECREATION AND TRAILS

1. Recreation Open Space

Objective PRT3.1: Encourage the use of open space areas for passive recreation.

Policy PRT3.1.1: Encourage the placement of multi-use trails or Class I bikeways adjacent to or within open space corridors, except that the placement of these trails should not compromise the preservation of any sensitive environmental resources which may be present in the open space area.

Policy PRT3.1.2: Provide for access points into open space areas to encourage passive recreation activities such as hiking and nature study. These access points should be located at sites which can best tolerate human presence and not directly impact sensitive locations such as springs and archaeological sites.

Policy PRT3.1.3: Provide interpretive information in some locations to enhance the educational aspects of passive recreation; however, most open space should be left in as natural a state as possible.

Discussion: Recreation is an important component of open space areas. Typically, the term open space includes both passive landscaped areas which do not contain the “developed” components of parks and natural areas where existing landforms and vegetation are maintained. The policies described above refer primarily to undeveloped, nature-oriented recreation such as hiking, mountain biking, and nature study.

2. Trails

Objective PRT4.1: Provide multi-use trails, for use by pedestrians, bicyclists, and equestrians, connecting to existing or currently planned multi-use trails.

Policy PRT4.1.1: Adopt the Multi-use Trails Plan, shown in Exhibit PRT-2, which shall delineate the multi-use trails systems for the City of Palmdale. The trails plan shall include all trails shown within the Planning Area, including those trails designated by Los Angeles County. Examine the feasibility of extending the multi-use trail system along the Southern Pacific Railroad, the Palmdale Ditch, and Amargosa and Ana Verde Creeks.

Policy PRT4.1.3: Where feasible, provide trail connections from the backbone trail system shown on Exhibit PRT-2 to such features as schools, parks, and open space areas to provide off-street access.

Policy PRT4.1.5: Provide trail support facilities, such as trail heads/staging areas, as needed throughout the multi-use trails network.

Policy PRT4.1.6: To enhance educational opportunities, place interpretive signage along multi-use trails at appropriate locations to describe important local natural history and site of historic interest.

Policy PRT4.2.5: Where appropriate, construct trails through linear parks, along drainage courses, utility easements or other such features, to maximize the public benefit of these types of facilities.

Objective PRT4.3: To the extent feasible, ensure that trails are accessible to all residents.

Policy PRT4.3.2: To the extent feasible, design trails to maximize the safety of trail users by incorporating features which provide visibility and discourage crime.

Discussion: Multi-use trails will provide access into open space areas for hikers, mountain bikers, and equestrians. However, the locations of the trails should not affect sensitive biological or cultural resources which may be present in the open space area.

C. NATIVE DESERT VEGETATION

Policy L3.5.5: Require that development is designed to be sensitive to the preservation and protection of the desert environment and that building orientation and design consider and complement the natural characteristics of the desert environment.

Objective ER2.1: Identify and preserve to the greatest extent feasible significant ecological areas.

Policy ER2.1.1: The following broadly defined areas, shown on the Overlay Map and Exhibit ER-5, will be designated as a Significant Ecological Area (SEA) overlay on the General Plan Land Use Map: Big Rock Wash, Little Rock Wash, Ritter Ridge, Portal Ridge, and Alpine Butte. Biological surveys should be performed to determine the nature and extent of their ecological significance prior to any approval of new developments within the overlay area. Any development permitted in these areas must consider significant environmental resources and preserve environmental resources to the extent feasible.

Policy ER2.1.2: Promote only compatible, and where appropriate, passive recreational uses in natural areas determined to be ecologically significant, consistent with the particular needs and characteristics of each SEA, as determined by approved field observation reports.

Policy ER2.1.3: Solicit and utilize all available sources of local, regional, state, and federal funds to acquire significant wetland areas, in order to minimize the disturbance and prevent damage from erosion, turbidity, siltation, a loss of wildlife and vegetation, or the destruction of the natural habitat.

Policy ER2.1.4: Preserve natural drainage courses and riparian areas where significant concentrations of ecological resources exist.

Policy ER2.1.5: Preserve and maintain significant Joshua tree woodlands and other significant habitat areas. Early in the review of development projects, the feasibility of preserving any significant vegetation present on-site should be examined.

Discussion: Native desert vegetation is an integral component of open space and preservation of viable biological systems should be a primary consideration in delineating open space and open space corridors. Corridors which link larger open space areas, provide for increased exchange of genetic data between biological systems which are separated by development. Therefore, corridors are a necessary component to any successful open space network.

D. SCENIC VISTAS, HILLSIDES, AND RIDGELINES

Policy ER1.1.1: Utilize a variety of features, including entry points to the City, landscaped arterial roadways, bikeways, equestrian paths, hiking trails, and park sites, to create an open space network.

Policy L1.4.3: Establish the following standards for development in hillside areas:

- a. Development in hillside areas should minimize grading, conform to natural topography, preserve ridgelines, and exhibit sensitivity to natural landforms.
- b. Development should be restricted on natural slopes of fifty percent and greater.

- c. Visually prominent ridges and hillsides should be retained in a natural condition.

Objective L3.4: Consider underlying topography, existing parcelization, existing land uses, infrastructure availability, and relationship between uses in designating and developing residential land uses.

Policy L3.4.1: Encourage flexible siting and design techniques and density transfers in hillside or physically constrained areas to preserve steep slopes or unique physical features.

Policy L3.4.4: Encourage subdivision design techniques that reflects underlying physical topography. Density and intensity of development should decrease as slope steepness increases.

Discussion: The prominent natural ridgelines which form the City's southern backdrop provide a distinctive visual setting for the City. The preservation of this area, in a largely open condition, will ensure that the visual amenities which residents currently enjoy are preserved for future residents.

E. FLOODPLAINS

Policy S1.2.9: Preserve and restore the natural and beneficial values served by floodplains to the extent feasible, consistent with public health, safety, and welfare.

Policy S.1.2.10: Promote open space and recreational uses in designated flood zones, unless mitigation of the hazard can allow other types of development.

Policy L.7.1.1: Ensure that development within the area between Lake Palmdale and the Antelope Valley Freeway is complimentary to the lake viewshed and consistent with sound water quality management practices by following the development criteria listed below:

- b. Require a minimum 100 foot setback from the historical high water mark of Lake Palmdale.

Discussion: Floodplains associated with both Little Rock Wash and Big Rock Wash provide opportunities for open space areas or corridors. These floodplains also support unique vegetation communities which serve as transition zones between the mountains and the desert. The required setback around Lake Palmdale offers opportunities for trails or open space corridors.

G. CRITERIA FOR ACCEPTANCE OF OPEN SPACE AREAS

Objective PS7.1: Ensure that any land proposed to be acquired, dedicated, or maintained by the City will contribute benefits to the general public, and that short- and long-term impacts of accepting responsibility for such land are adequately evaluated by the City.

Policy L6.2.1: Consider acceptance of natural open space dedications to the City if such dedication is consistent with City plans for an open space/greenbelt network. Lands proposed for dedication which lack potential for linkage with an overall system or lack valuable resources may not be suitable for acceptance by the City.

Policy PS7.1.1: Evaluate proposed dedications of land or easements to the City for various purposes based on the following criteria:

- a. **Natural Open Space/Trails/Parkland:** The proposed dedication of land or easements for the purpose of natural open space, trails, or parkland to the City should be evaluated based on the following criteria:
 1. The open space, trails, and/or parkland dedication should serve the open space/recreational needs of the City, rather than the more localized benefit of a single neighborhood.
 2. Other responsible agencies or land trusts should be considered as an alternative to outright dedication of open space to the City. In these instances, the City should determine whether a blanket easement to the City for open space and passive recreation is desirable.
 3. The open space area or trails should be reviewed to determine if they are adjacent to other publicly held open space and whether they are an integral element in the ultimate development of local or regional trails or a local/regional greenbelt. Trails should be reviewed to determine consistency with proposed alignments contained in the City's Parks, Recreation and Trail Element, North County Plan, or any other recognized plan.
 4. An evaluation should be made to ascertain whether the proposed area contains biotic, historic, or cultural resources of local or regional significance or whether the site represents a natural and scenic resource to the City.

5. An evaluation of any adjacent proposed development should ascertain the impacts of such development on the natural resources and aesthetic qualities of the site.
6. For natural areas which are in a degraded condition due to human activity or natural events such as fire or flood, an evaluation should be made of the costs to restore such sites to their natural or a useable condition.
7. Open space and trails should be accessible to the general public and provide general benefit; remnant areas within developments which are undevelopable may not be appropriate for acceptance in all cases, and may be more suitably maintained by a homeowners' association.
8. The short- and long-term fiscal impacts of accepting, improving, and maintaining open space or trails should be evaluated. Such evaluation should include an assessment of existing and potential fire hazards in wildland areas, geologic conditions, hazardous materials assessments, or other site conditions which may require significant City expenditure for mitigation.
9. Any proposed parkland should be evaluated to determine whether there is: a) an identified need for additional parkland within the area; b) whether the site is of adequate size and shape to accommodate park development; c) whether the site is proposed to incorporate additional facilities such as drainage basins; d) whether the site is compatible with existing and proposed adjacent land uses; e) whether the site is accessible to the general public; and f) whether the proposed dedication would provide greater benefit than would the collection of fees to be used for development of existing dedicated park sites.

Discussion: The criteria listed above will assist the City in setting priorities for open space acquisition. In most instances, acceptance of small landlocked undevelopable parcels will not contribute visually, recreationally or biologically to the City's open space network. In these cases, another maintenance entity/owner should be identified for the parcel, other than the City.

H. ACQUISITION OF OPEN SPACE AREAS

Policy ER1.1.7: Identify and utilize all available funding sources for acquisition and maintenance of open space areas for public benefit.

Policy ER1.1.8: Cooperate with private and public entities whose goals are to preserve natural and man-made open space. Develop criteria and guidelines to identify how to establish land trust open space locations.

Objective PRT4.2: Explore various means of acquiring trail easements or rights-of-way and pursue all available funding sources to provide trail acquisition and construction.

Policy PRT 4.2.1: Require dedication of trail easements and/or construction of trail improvements as a condition of approval of development, to the extent allowed by law.

Policy PRT 4.2.2: Consider the use of a public financing district to provide funding for design, acquisition, construction, and maintenance of trails throughout the City.

Policy PRT 4.2.3: To the extent feasible, use grant funding and private donations to finance trail construction.

Policy PRT 4.2.4: Use the City's Capital Improvement Program to provide short-term planning for acquisition and construction of trail segments.

Discussion: The criteria listed above will assist the City in identifying sources of funding for open space acquisition. There may be circumstances where, in order to connect open space areas or acquire areas with especially unique resources, the City will have to negotiate with property owners for open space easements or land. Sources of funding for this acquisition needs to be determined beforehand so that acquisition can be quickly accomplished.

I. SPECIAL DEVELOPMENT AREAS

1. Southwest Development Planning Area

Policy L7.1.9: Ensure that development within the Southwest Special Development Planning Area occurs in a logical and orderly pattern, and provides for timely and economical provision of infrastructure, compatibility with existing neighborhoods,

sensitivity to environmental and topographic constraints, and establishment of proper buffering around the landfill, by requiring the following area-wide planning and infrastructural studies:

- b. Infrastructure plans shall contain an analysis and establishment of municipal facility needs for the area, including, but not limited to, parks, schools, libraries, maintenance yards, public trails and greenbelts, satellite police and fire stations, or similar facilities deemed necessary as a result of urban development within the Southwest Special Development Area.
- c. A method for financing infrastructural and facility needs shall be established that equitably allocates costs among property owners who will benefit from these improvements.
- g. Compatible residential land use designations shall be established adjacent to existing residential neighborhoods.
- h. Land use designations shall be established that provide a minimum 1,000 foot buffer between the ultimate landfill boundaries and residential uses.
- i. Significant ridges within the highly visible upper elevations of Verde Ridge and the Sierra Pelona foothills shall be preserved as natural open space.

2. Vincent Hills Area

Policy L7.1.6: Ensure that future development within the Vincent Hills Special Development area retains significant natural features on the site, provides for the proper integration of commercial and residential land uses, provides comprehensive circulation planning between various individually owned parcels within the area, and establishes reasonably sited commercially designated areas in accordance with the following criteria:

- a. Steeper hills and larger drainage courses shall be retained in a natural state.

3. Bushnell Area

Policy L7.1.7: Ensure that future development within the Bushnell Special Development Area considers physical constraints on the property, including earthquake faults and canyon areas, and that densities are established which maintain consistency with the south side area in accordance with the following criteria:

- a. Utilize clustering to provide additional open space in steeper areas and within fault zones.
- b. Hunt Canyon should be considered for open space uses, which may include a golf course.
- e. A Master Drainage Plan utilizing natural open space and drainage areas to the maximum extent feasible. A master infrastructure plan shall be provided for the area, considering sewer, water, roads, and public services.
- h. Larger lots and open spaces shall be provided at the periphery of the project area, to assure consistency with the surrounding area.

Discussion: The areas described above have been identified as having additional planning needs to establish appropriate land uses and provide sufficient infrastructure. Through comprehensive planning effort, opportunities for open space dedication can be determined and incorporated into future plans.



Community Design Element

SECTION 1: INTRODUCTION

The Community Design Element of the General Plan establishes policies to shape the City's overall form and appearance. The standards and guidelines contained in this Element are intended to improve the functional and aesthetic quality of the built environment for City residents and businesses.

The process of designing our community is a continuous one, with each development decision contributing to the City's urban form and quality of life. To successfully achieve good community design requires involvement of both public and private development interests, and presents aesthetic, economic, political, and administrative challenges. The policies must accommodate design features unique to each individual project, while maintaining a consistent standard of design and construction quality throughout the City. They must be applied equitably to each project, but they should not unduly limit opportunities for affordable business and housing development. They must be clearly stated and simple to apply, while avoiding rigid dictums in favor of flexibility.

Despite the difficulties inherent in drafting and implementing community design policies, however, the benefits to the City of doing so outweigh the obstacles. If they are carefully crafted and applied equitably, such standards can help create a desirable community where people want to live, work and recreate a community attractive to businesses, where property values consistent with a high standard of living are established and maintained.

It should be emphasized at the outset that the intent of the Community Design Element is not to establish uniform architectural standards for any land use category within the City of Palmdale. Rather, the element is intended to establish guidelines for developers, staff, and decision makers to use in evaluating whether development projects meet the design goals of the City for functional, efficient, and attractive development.

This element is organized into four sections, in keeping with the format established for the other elements of the Palmdale General Plan. Section 2 of the element contains a discussion of issues and opportunities for Palmdale with respect to community design on a city-wide basis as well as for specific use types. Section 3 contains goals, objectives, and policies for the City to follow in making land use decisions, and Section 4 contains implementation measures.

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The Community Design Element is an optional element of the City's General Plan, as authorized by Section 65303 of the California Government Code. Policies within the Community Design Element may relate to land use, circulation, environmental resources, housing, or other issues which are addressed throughout the General Plan; the element is consistent with the other General Plan elements, and should be used in conjunction with them in formulating future land use decisions affecting the City.

A total of six public workshops and hearings were held to take input on the Community Design Element between September 15, 1994 and December 14, 1994. The Element was adopted by the City Council on December 14, 1994, by adoption of Resolution 94-142, which also contained a finding that the Element was determined to be consistent with the Environmental Impact Report prepared for the General Plan which was certified by the City Council on January 25, 1993.

SECTION 2: ISSUES AND OPPORTUNITIES

Although the design of a development project is often considered to be only an aesthetic concern, the implications of design decisions often have more far-reaching impacts on a community. Effective design can maximize use of a site and decrease construction costs, provide convenience to users and ensure compatibility with adjacent uses, and protect natural resources while allowing managed growth to occur. More importantly, the cumulative impacts of design decisions applied over time will influence whether a city develops as a attractive, functional, thriving community, or whether it presents a sterile, blighted or neglected appearance to potential business investors and residents.

Community design issues affecting planning decisions may be grouped into two categories: design issues affecting the overall form, character and identity of the city; and issues relating to a specific land use type, such as commercial, residential or industrial uses. This section of the Community Design Element provides background information and identifies issues and opportunities for these two types of design issues, as they affect planning decisions in the City of Palmdale.

A. Community-Wide Design Issues

1. General Design Principles

When people think of memorable cities where they have lived or visited, they may recall the public places where people gathered, the community life on the streets, the variety of architecture, the things to do, the places to go, or just the "atmosphere." Great cities and towns have a "sense of place" that is distinctive and memorable. These communities are attractive to businesses and investors as well as residents, because of the value placed on quality of life.

Urban planners have long tried to define the characteristics that contribute to the creation of a place where people want to be. Numerous studies to identify what qualities draw people into certain urban places have reached similar conclusions. People seem to like places that are orderly and understandable, rather than confusing; where building placement and massing creates a sense of unity and balance at a human scale; where links exist between places, providing connections rather than dead ends; where diversity of architecture, uses and activities creates interest rather than monotony; where people feel comfortable, protected from the elements, and provided

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with places to sit and talk; where they feel safe, with various access points and other people nearby, rather than isolated; where building materials and construction feel authentic, substantial and timeless, rather than cheap, trendy or false; where people can conduct business, or simply enjoy the place and meet other people, without major inconvenience, time or effort. In short, people like places that are well-designed. The experience of many other cities has demonstrated that an attractive, functional and well-designed urban environment will draw a mix of users and create a synergy contributing to a successful community that flourishes both economically and socially.

General design principles for guiding Palmdale's development in a positive manner are contained in Goal CD 1 and the accompanying objectives and policies (see Section 3). The most important of these is Objective CD 1.1, which requires that the relationship of each development project to its setting be considered. In his 1993 book Rebuilding, Daniel Solomon writes that "buildings alone don't matter; it is only the ensemble of streets, lots and buildings, and the way they fit together, that comprise the basis of town making." The building blocks of structures, sites, streets, neighborhoods and districts must be considered in design decisions, rather than focusing on the architectural treatment of any single building. A site can function well within its neighborhood context, even if it is not architecturally remarkable; conversely, an architectural masterpiece may feel out of place if it does not reflect the scale and character of the surrounding neighborhood. The Community Design Element is intended to provide a basis for evaluating land use decisions at a level between land use map designations and architectural building details, in order to ensure that new development functions well in its environment.

The policies contained under Goal CD 1 should be considered in each development decision, for residential, commercial or industrial uses, for capital improvements by the City, and in all geographic areas of the City. If applied equitably and consistently, these principles will assure that new development contributes to rather than detracts from Palmdale's community character.

2. Citywide Design Opportunities for Palmdale

Gertrude Stein once wrote of a California city that when you arrive there, there's no "there" there. Features within a city which make it unique and identifiable as a separate community must be created and enhanced, in order to avoid eliciting a similar reaction from visitors and residents.

Palmdale's natural setting offers many opportunities to create a sense of place. Its foothill location affords views of the Antelope Valley, the Tehachapi and San Gabriel Mountains, and desert buttes and playas. Its topography offers rolling hillsides, steep slopes, and flatland. Its vegetation includes juniper/joshua woodlands, remnant orchards and riparian habitat, while its clean air and wide vistas offer a sense of space and openness. In addition to its natural advantages, Palmdale has enjoyed a unique history, evolving from an Indian gathering place to agricultural center to aerospace pioneer. Palmdale can capitalize on these attributes to enhance its community identity.

Design opportunities which can be developed for the Palmdale community as a whole include streetscapes, entry points, views toward and from hillside areas, significant focal points, landscaping and signage, and treatment of the freeway corridor. Together, these elements can combine to influence the image of the city presented to people visiting Palmdale. These design features can be used to differentiate Palmdale from other suburban communities in southern California, and create a distinctive identity for the City.

Goal CD 2 and the accompanying objectives and policies are intended to provide a basis for creation of community-wide design elements which will contribute to Palmdale's sense of place.

B. Design Considerations for Specific Land Use Types

1. Residential

Rural Residential Development

The Palmdale community contains several residential areas which are characterized by large lots, agricultural accessory uses such as horses and farm animals, and rural standards for streets and other public improvements. The predominant lot size in some of these areas is one acre, while others consist of 2 1/2 acre or larger parcels. In general, rural residential neighborhoods are located in the southern portion of the planning area (south of Pearblossom Highway along the foothills), and the northwestern portion of the planning area (between 20th and 50th Streets West, extending between Avenues M and P). Although the majority of these lots are not within the City's incorporated boundaries at this time, they are within the adopted sphere of influence and the City is required to plan for them. The land use map designates these areas for low density residential uses, in order to preserve their rural character. The Community

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Design Element addresses rural residential development by establishing design standards appropriate for these areas.

Rural residential development in the Palmdale planning area occurred under standards established by Los Angeles County in its A-1 (Light Agriculture) Zone. Those rural residential areas which are now within the City of Palmdale were substantially developed prior to annexation; other rural areas are still under the County's jurisdiction. Over the past several years, many discussions have occurred between representatives of the City and homeowners associations in these areas regarding the residents' desire to maintain a rural lifestyle. In 1990, the City adopted Memoranda of Understanding with two separate property owners organizations representing unincorporated rural residential areas, under which the City agreed to respect existing development patterns and standards in these areas, to limit encroachment of incompatible urban uses, and to establish rural development standards for the areas if they are annexed to the City.

In 1994 the City revised its A-1 (Light Agricultural) zone based upon input from and coordination with representatives of the Southside Homeowners Association and other rural neighborhoods. Uses and regulatory standards outlined in the revised zone reflect existing development patterns in rural residential areas.

With respect to design guidelines, one issue of concern in rural areas is the desire to create and maintain a spacious, open setting for each lot. This can be done through standards for lot dimensions and setbacks, so as to discourage development which appears to be dense at the street frontage but meets minimum area standards through long, narrow lot configurations. Another issue is defining roadway design standards appropriate for rural areas; these streets are not intended for large traffic volumes and high speeds, and can therefore be narrower than other city streets. Residents have also asked that street lighting standards be modified to allow less illumination, preserving views of nighttime skies. In addition, because of the equestrian uses prevalent in these areas, access from lots to feeder, collector and regional trail systems should be considered in subdivision design. Goal CD 3 and the accompanying objectives and policies further define the City's commitment to preserve the unique character of rural lifestyles within the planning area.

Suburban Residential Development

The suburban development pattern is characterized by single family detached dwelling units constructed by a tract builder on land which was previously subdivided, at densities ranging from three to six units per acre. Approximately seventy-six percent of

the dwelling units in Palmdale fit this description and are located in suburban neighborhoods.

Various types of suburban residential development found in Palmdale are indicative of forces which affected housing trends nationally. From older tracts developed in the post-war housing boom of the 1950's to golf course subdivisions and planned unit developments, Palmdale's single family housing stock reflects development patterns shaped by federal regulations, financing and marketing considerations, and building industry practices.

The older subdivisions in the central part of town exhibit characteristics called for in the guidelines issued by the Federal Housing Administration in the 1930's and 1940's. The grid street patterns use narrower rights of way than is now required, with sidewalks separated from the curb by a landscaped strip. Small subdivisions are enclosed by block walls, and are self-contained with dead-end streets that don't connect to adjacent neighborhoods. Although these neighborhoods contain the City's older housing stock, they provide affordable units in a relatively low-density neighborhood. Many of these areas provide a pleasant living environment through the presence of mature street trees, front doors near the street, landscaped parkways and proximity to community services.

From a community design perspective, there are two major challenges to the City in preserving and enhancing these areas. The first is a lack of adequate infrastructure, or adequate capacity in existing infrastructure, to support the density of development. This issue has been dealt with in some areas through formation of assessment districts to finance street and other public improvements, and is further discussed in the Public Services Element. The second major challenge is maintaining these properties in a safe, attractive condition. Many of these units have become rental properties, with some entire blocks purchased by out-of-town investors. Property maintenance conditions have become a major concern in some areas. In 1994, the City adopted a Property Maintenance Ordinance (No. 1028) to assist staff in obtaining compliance with City codes. Other General Plan policies have also addressed the need to upgrade and rehabilitate older housing throughout the City (see the Land Use and Housing Elements).

During the mid-1980's Palmdale was swept up in a housing boom resulting in a rate of population growth unmatched in California. Since the beginning of 1985, over 250 tentative maps creating over 26,000 lots have been approved, and over 18,200

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residential lots have been recorded. Expanses of land stretching the fourteen miles from 70th Street West to 70th Street East were converted to roof-tops. Construction activity in the single family residential market sector accelerated rapidly, beginning in 1985 and peaking in 1990, after which it declined due to a national recession and other factors slowing the California economy.

Subdivision design during these years was influenced by financial, economic and marketing concerns. Financial investors in the housing market sought to protect their investment by isolating subdivisions from potentially detrimental surrounding neighborhood environments. Marketing and real estate promoters targeted certain market sectors for each subdivision--first-time buyer, move-up or executive--thereby creating a relatively homogeneous neighborhood within each tract. Traffic engineering standards were adopted which increased street widths and curve radii, eliminated planted parkway strips, and isolated neighborhoods from arterial streets in order to increase arterial travel speeds and capacity.

The marketing trend towards golf course subdivisions and Planned Unit Developments was also evident in Palmdale. A golf course subdivision was created in 1972 (Country Club Estates), and the Rancho Vista planned development promoted home sales on the basis of a future golf course, parks and other amenities. In 1992 the City approved two additional planned developments in the southwest portion of the planning area (the City Ranch and Ritter Ranch Specific Plans), both of which contain clearly defined programs of public improvements and amenities which are to be constructed as development occurs.

With the rapid pace of development activity in the late 1980's, community design issues took a lower priority than the City's desire to facilitate economic development. After the economy slowed down, however, City officials took a closer look at the uncoordinated development patterns resulting from this growth cycle, and several concerns became evident. In some subdivisions, streets did not connect to the adjacent subdivision. Streets started and stopped in a disjointed fashion, blocking through-access between neighborhoods. Houses were cut off from adjacent homes, schools and parks by block walls. Some streets were lined with block walls for miles, creating streetscapes dominated by concrete and masonry, unrelieved by shade trees or views of open spaces. Public safety vehicles patrolling neighborhoods had limited visibility of residential streets, and emergency vehicles had trouble finding street addresses in confusing mazes of cul-de-sacs. Within neighborhoods, residents began complaining to City officials that traffic sped through their streets, endangering their children.

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Based on these concerns, the City reviewed its subdivision development procedures, and determined that a need existed to establish design guidelines. An initial set of Subdivision Design Guidelines was accepted for use by the City Council on February 9, 1992. Some of these guidelines, relating to circulation and infrastructure issues, were expanded and incorporated into the Circulation and Public Services Elements of the General Plan in January, 1993. Other guidelines were determined to be appropriate for inclusion in the Community Design Element. These guidelines have been expanded and are contained under Goal CD 4 in Section 3.

Collectively, the subdivision design guidelines are intended to promote development of neighborhoods within the City of Palmdale which are cohesive, functional, and create a sense of community. Emphasis is given to promoting interaction within and between neighborhoods, and providing links between community facilities and the neighborhoods they serve. To accomplish this goal, planning and design must extend beyond the boundaries of an individual subdivision. The focus should be on geographic areas that encompass an entire neighborhood, rather than on limiting the scope of design and review to individual tract boundaries. Neighborhood planning areas are typically defined by arterials, railroad rights-of-way, drainage courses, topographic features, and other similar barriers which function as neighborhood boundaries. If the guidelines are properly implemented, there will be an economy and efficiency of infrastructure construction and maintenance, a logical integration of circulation routes for both vehicles and pedestrians, the creation of lot patterns that enhance livability; and a heightened sense of neighborhood.

It is important to recognize the limitations of public agency involvement in the housing development process. With the exception of publicly assisted affordable housing projects, cities are not in the development business; they do not finance, design, construct or market subdivisions. The City's authority is limited to establishment of policies which will clearly communicate to developers and builders what type of neighborhoods the City wants, and the approval authority (through the discretionary review and entitlement process) to gain certain design considerations. Equally important, however, is the concept that public and private development interests can work together to create livable neighborhoods which retain their value and provide for community life. This cooperative approach to subdivision design should be a common goal.

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Multiple Family Residential Development

In 1994, eighteen percent of the dwelling units in Palmdale were multiple family attached units. With the exception of a few projects, the bulk of the multi-family units in the City were built prior to 1986. The trend towards construction of single family detached instead of multi-family units in Palmdale over the last ten years appears to be due to a faster absorption rate for detached units and the availability of financing. Changes in the tax laws affecting rental properties in 1986 may also have had an effect on the rate of construction in this sector of the housing market.

Because Palmdale has not processed many proposals for apartment or condominium units over the last five years, serious concerns over design issues on new multi-family complexes have not been raised. The City has, however, been faced with safety problems in older apartment complexes--primarily relating to crime prevention--which are caused by certain design characteristics. Based upon the City's recent experiences with law enforcement and community-based policing in predominantly multi-family residential areas, it has become apparent that in the future certain requirements should be made at the design review stage for new multi-family development projects to ensure residents' long-term health, safety and welfare.

Major issues of concern are visibility of publicly-accessible areas, to increase safety and discourage vandalism; adequate lighting for public safety; provision of amenities and places for children, seniors and other residents to recreate; availability of parking and trash enclosures within a reasonable distance of each dwelling unit; adequate secondary or emergency access from each development; and provision for maintenance of site amenities, landscaping and buildings. Another concern is how these areas can integrate into the surrounding neighborhoods, in order to encourage interaction between residents and adjacent uses. Site designs which provide barriers around the perimeter of multi-family developments, such as unbroken rows of carports, parking areas and solid fencing, do not encourage community interaction. While fencing and gates may be needed in some areas to provide security, consideration should be given to creating neighborhoods rather than a series of self-contained enclaves.

The factors identified above are addressed in Goal CD 5 and the accompanying objectives and policies in Section 2 of this Element, which are included to ensure that multiple family housing meets the City's community design goals.

Approximately six percent of the City's housing stock is provided by mobilehomes and manufactured dwelling units, which are primarily located within mobilehome parks. As with multiple family units, most of the mobilehome parks within the City were developed prior to the mid-1980's. Many were developed under conditional use permits granted by Los Angeles County, and later annexed to the City. As a result, the City has had limited experience with applying design standards to new parks. However, many of the design guidelines for single family and multiple family neighborhoods contained within Goals CD 4 and CD 5 of Section 3 are applicable to manufactured home developments. The concepts of connectivity, recreational amenities, diversity of design, landscaping, convenient access, pedestrian and transit connections, and creation of neighborhoods should be applied to any new manufactured housing development. Therefore, a policy has been included requiring that manufactured home subdivisions and parks comply with applicable residential design standards contained in this element.

Senior housing projects merit special attention with respect to the unique living needs of aging people. Visits by staff members to senior housing projects in other cities, and conversations with administrators and residents in these projects, have contributed to a better understanding of what these needs are. One of the components of senior housing to consider from a design standpoint is the aging of the senior population within the complex. While residents in a senior project may enter the units in a relatively active and healthy condition (in their sixties or early seventies), those people may stay until they reach very advanced ages; during that time, their needs and abilities change.

Staff asked administrators of three senior projects how they would design the buildings differently if they were given the opportunity to start over, based upon what they had learned over time by observing residents' needs. We were told that residents do not use outdoor balconies much, and would prefer larger living rooms than balconies if given a choice. Seniors enjoy work spaces for light carpentry and gardening; workshops with power tools and greenhouses were heavily used. All residents need more storage. Door closers are needed for each unit, but must be light enough for the most frail elderly residents to open. Frost-free, free-standing (not built-in) refrigerators are recommended, as are microwave ovens. Handrails and adequate lighting are needed in hallways, and hallways should be broken up visually to avoid confusion. Benches along long hallways are helpful, as are plants and pictures to provide visual landmarks. Low thresholds should be used on doorways, to avoid tripping and improve wheelchair accessibility. Utilities are recommended to be included in the monthly rent, but separate metering should be provided for more equitable division of utility expenses. Parking ratios are recommended to be less than for standard multi-family

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development; many jurisdictions use a ratio of one space per three dwelling units. It was recommended that about ten percent of the units be fitted for wheelchair accessibility, including bathroom and kitchen fixtures and lowered countertops. An alternative would be to make all units wheelchair adaptable. It was suggested that front entryways and common areas be designed with a homelike atmosphere, avoiding a hotel-like or institutional look. Open space areas were most successful when they received sun in all seasons, with shade trees provided and movable seating so conversation groups could form.

These are among the design concepts which should be considered in reviewing senior residential projects. Policies directing that the special housing needs of seniors be considered in the design of any new senior project are contained under Objective CD 5.6.

2. Commercial and Industrial Development

With the exception of older structures located within the downtown core of Palmdale, most of the commercial development in Palmdale has been constructed within the last ten years. The regional mall, auto center, power center (including Home Depot and Walmart), Marketplace (including Target and Best Buy) and K-Mart have all opened since 1989, within and adjacent to the Palmdale Trade and Commerce Center. Numerous smaller-scale projects have also been constructed to serve neighborhood commercial needs throughout the City, including four market-drug centers along Avenue S, one on Rancho Vista Boulevard, and several along Palmdale Boulevard. The rapid increase in new retail construction over the last decade reflects a concerted effort by the City of Palmdale to capture sales tax revenues generated by the burgeoning Antelope Valley population. As a result of its recent development, Palmdale's commercial sites are generally structurally sound, adequately parked and lighted, landscaped, and exhibit unified design themes within each center.

Architecturally, many of the newer commercial buildings are designed with mediterranean motifs, including beige or earth-tone stucco coatings, red tile roofing and colored tile accents. In and around the regional mall, peaked roof lines and tower treatments are recurring features. An attempt has been made in the Palmdale Trade And Commerce Center Specific Plan area to maintain unity in design through use of these elements.

The commercial corridor along Palmdale Boulevard, extending from 10th Street West to 35th Street East, shows less uniformity of design, primarily due to the lack of an

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underlying specific plan and the uncoordinated nature of individual development efforts. Portions of this corridor are mediterranean or Spanish style, while others are of a more eclectic nature. Interspersed with newer centers are older buildings, especially in the downtown "core" area of the City. Specific design standards for development around the Sierra Highway/Palmdale Boulevard intersection and surrounding vicinity will be addressed in the Downtown Revitalization Plan.

The majority of Palmdale's industrial uses are located on or near Air Force Plant 42. Most of the buildings owned or leased by government contractors in this area are not accessible to the general public, due to security measures. Although the massive size of the structures needed for aircraft assembly makes them visible from long distances, individual design features of these buildings and sites have not traditionally been a major concern for the City because they are set apart from areas frequented by the general public.

Scattered industrial development has also occurred along highly visible corridors such as Sierra Highway, Sixth Street East, 10th Street West, and along Avenues M, N, P and Q. Newer buildings in these areas have been developed in a business park setting by speculative builders for lease to a variety of industrial and office users. Older industrial uses include lumber and truss yards, contractors yards, machine and carpentry shops, equipment and storage yards, and vehicle services. As with the commercial development in the City, newer industrial structures are generally of good quality and materials and have adequate circulation, parking, lighting and landscaping. Some of the older uses could improve in design, but may remain as nonconforming uses until the land is reutilized.

A major design issue for commercial/industrial development in Palmdale is the need to consider multiple modes of transportation in site planning for these areas. While this issue is a matter of convenience for site users, it is also mandated under State and Federal clean air regulations requiring reduction of vehicle trips. Many of the existing commercial/industrial sites within the City seem to give automobile-related features primary emphasis, while offering little in the way of pedestrian pathways, shaded walkways and seating areas, or bicycle access and parking areas. In addition, public transit stops have not been provided with turnouts, benches or shade in many locations, and convenient pedestrian access from bus stops to building entrances have rarely been provided.

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Another visible sign of the predominance of the automobile in site planning is the large expanses of parking lots located adjacent to the street. Most large commercial tenants require that parking be provided within a specified radius to their front door; consequently, site plans typically set buildings to the rear of the site and (with the exception of some out-parcels) place parking along the street frontage. The resulting streetscape is not inviting to pedestrian window-shoppers, and discourages access by any other than vehicular users. If a pedestrian does enter the site, there are no clearly delineated walkways offered and foot traffic must compete with automobiles for use of travel ways, or wend a path between parked cars.

In some commercial areas where a pedestrian-oriented shopping environment is desired, this development pattern must be reversed; buildings should be placed at the edge of pavement in order to provide interest and immediate access by pedestrians, while parking should be located behind the buildings or on the periphery of the district. This development technique will be required in the Downtown Revitalization Plan in order to create a active shopping district in the Civic Center area, and may be appropriate in other locations as well. Where appropriate, building setbacks should be flexible to accommodate the need for pedestrian-oriented commercial uses. Policies encouraging pedestrian and other modes of transportation within commercial/industrial areas are contained in Section 3 under Goal 6.

Another design issue for commercial/industrial development is the need for integration of each site into its surrounding area, with respect to circulation inter-connectivity, building placement, consistency of design features, and landscaping. If individual site plans within a shopping district are properly designed, it should be possible for a customer to park a vehicle and walk to several places of business without having to drive from one to the other. In addition, vehicles should be able to access various parts of a commercial development without exiting onto a public street.

Each portion of a development plan should consider adjacent structures and their uses. For example, one building should not place its loading dock and trash compactor adjacent to another building's front door. If one site user has created a pleasant outdoor seating area for food service, another user should not erect an adjacent structure which permanently shades this area with a large and foreboding block wall. Each site and building design should fit into its context, in order to present a unified image to the street and a convenient, pleasant environment for users. Policies requiring integration of site designs are also contained in Section 3, Goal 6.

3. Mixed Use Development

Traditional zoning practices have separated different uses, rather than allowing them to co-exist on the same site. Increasingly, however, cities are recognizing the benefits of allowing mixed use development. By mixing uses, businesses can provide commercial goods and services in close proximity to the residents they serve, and benefit from the ready customer base living in the immediate area. Mixed uses can provide employment opportunities within walking distance of residential neighborhoods, reduce the area devoted to vehicle parking, limit travel times, vehicle trips and traffic congestion, and minimize air emissions. Providing opportunities for people to live and work in the same location can cut overhead costs for beginning entrepreneurs and artisans, and provide for more stable family situations for working parents with young children. In addition, mixed-use neighborhoods have the potential to create an interesting and exciting social fabric within a community. For these reasons, Palmdale has included mixed use designations within the General Plan and Zoning Ordinance to allow and encourage mixed use development.

Goal CD 7 addresses desirable design features for mixed use areas. As with other sections of the Element, emphasis is given to interconnectivity of uses by all travel modes, and integration of uses to maximize benefits and minimize adverse impacts.

4. Public Facilities

The Community Design Element addresses each type of land use with great detail in terms of layout, function and appearance. It is the City's intent that these same design considerations be applied to land within the public realm, including rights-of-way, public buildings and open spaces. Goal CD 8 outlines specific policies the City will adopt for various public projects and capital improvements, in order to ensure that the community character which the City is attempting to achieve will be found in both private and public places. Design guidelines for streetscapes, drainage facilities and public buildings are contained in Section 2 under Goal CD 9.

C. Conclusion

To achieve the design goals outlined in Section 3 will require a unified effort by the staff of each City department involved in development decisions, as well as the Planning Commission and City Council. Various implementation measures are outlined in Section 4 of this Element. A primary tool in this effort will be the City's updated Zoning

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Ordinance, which contains specific requirements designed to ensure compliance with the community design goals. The Downtown Revitalization Plan will expand on design criteria appropriate for a pedestrian-oriented commercial core combining specialty retail, entertainment, office and civic uses. The City's engineering design standards will be modified to recognize the special design needs of rural areas, and enforcement will be used to enhance property maintenance where needed. These are all City-sponsored measures which can be taken to implement this Element.

Section 4 also outlines measures which should be taken to involve the private sector in community design objectives. Specifically, coordination with private businesses to upgrade older facades and landscaping and to enhance new development could be addressed through business incentive programs, including low interest loans or other means. In addition, presentation of the City's design goals in clearly stated, illustrated handouts should be made available so that designers can incorporate these features into their development plans.

The City will also actively investigate and pursue available funding sources for landscaping, utility undergrounding, city beautification and other programs targeting community improvement, as well as committing certain City funds to these measures when feasible.

With cooperation on these implementation measures and adherence to the goals and policies contained in this Element, the City of Palmdale will demonstrate its commitment to creation of a well-designed and livable community.

SECTION 3: GOALS, OBJECTIVES AND POLICIES

GOAL CD 1: Create and maintain a well-designed built environment for the City of Palmdale, which contributes to the community's economic vitality and enhances the quality of life for its residents.

Objective CD 1.1: Consider the relationship of each development project to its setting.

Policy CD 1.1.1: Each project should reflect and be integrated with the character and design of the surrounding area, with respect to such design elements as size, shape, massing, setbacks, orientation, architecture, colors and landscaping.

Policy CD 1.1.2: The relationship of building to site to street for each development project should be appropriate for the type and intensity of development, and compatible with adjacent properties.

Policy CD 1.1.3: Site design should be integrated with infrastructure systems of the surrounding area, including street patterns, trails and open space, drainage and utility systems.

Policy CD 1.1.4: The relationship of a development project to its setting shall be considered for varying times and conditions, including daytime and nighttime hours, changing seasons, and anticipated changes in development conditions over the life of the project, to ensure compatibility of development over time.

Objective CD 1.2: New development should contribute to the community character through distinctive design and quality workmanship.

Policy CD 1.2.1: Development projects should project an identifiable character in keeping with the community, through the following means:

- a. Use of unique architectural or site design features appropriate for Palmdale, a desert city;
- b. Use of recognizable design elements from the surrounding neighborhood or vicinity which create continuity of design for the area;

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- c. Orientation to a focal point on site or within the vicinity;
- d. Avoidance of the use of corporate architecture prototypes where such designs conflict with established neighborhood character.

Policy CD 1.2.2: Development projects should maintain and enhance long-term value for the community through quality of design, workmanship and materials, and use of classic styles and colors which will not become quickly out-dated. In this context, the term "value" may include social, economic, environmental, aesthetic, or other long-term benefit.

Objective CD 1.3: The history of Palmdale should be reflected in the community's design.

Policy CD 1.3.1: Promote use of design elements which reflect the various periods of history and settlement in Palmdale.

Policy CD 1.3.2: Historic architectural themes and elements appropriate to Palmdale should be incorporated into buildings, building components and public spaces, where appropriate.

Policy CD 1.3.3: Community design should reflect the community's roots, rather than simulating historic periods or events which did not occur in the Antelope Valley.

Policy CD 1.3.4: Landscape design should ensure that the local stock of native trees and vegetation is replenished.

Objective CD 1.4: Community design should create an environment which is easy to understand and convenient for users.

Policy CD 1.4.1: Site designs should function well for site users, including both pedestrian and vehicular traffic, as well as bypassing traffic.

Policy CD 1.4.2: Site design should create a sense of order by orienting buildings and site features based on the geometry of adjacent streets and other significant site features; in general, buildings should be parallel to the street(s) they face.

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Policy CD 1.4.3: Project designs should avoid confusing, complex elements which create disorientation for users.

Policy CD 1.4.4: Site entry points and accessways should be emphasized to guide people to their destinations.

Policy CD 1.4.5: Pedestrian walkways should be provided to connect uses within and adjacent to each development.

Policy CD 1.4.6: Site design shall comply with handicapped access requirements and provide a convenient circulation system for people with disabilities.

Objective CD 1.5: Functional public spaces should be created within development projects.

Policy CD 1.5.1: The relationship between buildings and spaces within a development project should be evaluated to ensure that space is usable and not devoid of purpose; space should be organized to create a setting which is functional and supportive to the needs of pedestrians and/or vehicles, and dead spaces should be avoided.

Policy CD 1.5.2: Open public spaces should be easily accessible, permit circulation connectivity throughout the site, and foster interaction of site users.

Policy CD 1.5.3: Pedestrian spaces at a human scale should be provided where appropriate and furnished with comfortable seating (movable if appropriate), shade and wind protection, and landscape or architectural features. In this context, human scale means a distance at which faces are distinguishable from one side of the open space to the other.

Objective CD 1.6: Development should be designed to encourage and facilitate interaction of people and neighborhoods, rather than to create barriers between them.

Policy CD 1.6.1: Development designs should create places for people to gather and interact.

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Policy CD 1.6.2: Use of barriers within and between developments should be avoided in favor of interconnected access points where appropriate.

Policy CD 1.6.3: Designs shall incorporate pathways between and among uses or neighborhoods to the extent feasible.

Objective CD 1.7: Site designs should provide for the comfort and safety of users.

Policy CD 1.7.1: Architectural and landscape elements should be used to create places that are comfortable, safe and functional.

Policy CD 1.7.2: Site design should recognize the extremes inherent in Palmdale's desert environment, including heat, cold, and wind, and incorporate techniques to control or mitigate these factors.

Policy CD 1.7.3: Promote use of construction and design features for sound attenuation, where needed to reduce noise impacts to acceptable levels as specified in Policy N1.2.3 in the Noise Element.

Objective CD 1.8: The built environment should provide a visually interesting and stimulating setting by using varied physical forms and details which contribute to Palmdale's sense of place.

Policy CD 1.8.1: Site and building designs should incorporate a blend of various forms, materials, colors and architectural details which are appropriate for Palmdale's setting, history, form and community.

Policy CD 1.8.2: Use of diverse design techniques should achieve a balance; too much variety in architectural treatment may appear confusing or over-ornamented, while too little variety may result in a sterile or regimented appearance.

Policy CD 1.8.3: Design elements should be incorporated into the architecture of the building, rather than added onto the building's facade as trim.

Policy CD 1.8.4: Architectural treatment should be included on all sides of buildings, rather than on the front or street side only.

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Policy CD 1.8.5: Changes of building forms and spaces created between buildings should be used to create a sense of interest in the site design.

Policy CD 1.8.6: Variety and contrast of elements should be used to enhance visual interest in development projects.

Policy CD 1.8.7: Development projects should be visually interesting and attractive for both site users and observers from adjacent streets and properties.

Objective CD 1.9: Ensure that building placement, orientation and design create an attractive environment for living, working and shopping, by screening equipment, utilities, loading and trash collection areas.

Policy CD 1.9.1: Loading areas and facilities shall be located behind the main structure, so as to be screened from public rights-of-way by the building placement. For buildings abutting the freeway, loading areas should be located on the side of the building away from oncoming traffic on adjacent travel lanes. All loading areas shall be screened by walls which are architecturally integrated with the main structure(s). Landscaping shall be provided where appropriate to soften the height and mass of screen walls.

Policy CD 1.9.2: Screening for roof-mounted equipment shall be integrated into the building design, such as with parapet walls or roofline treatment, rather than added as a separate device which is not part of the structure and appears to be an afterthought.

Policy CD 1.9.3: Trash enclosures shall be designed to integrate with the site design, using the same materials and architectural details. Where appropriate, design shall include a pedestrian entrance without a gate, as well as metal gates fastened to pipes embedded in concrete (rather than bolted to masonry enclosure walls). Roof or lattice treatment shall be provided to prevent wind-blown trash from leaving the enclosure. Trash enclosures shall be screened with appropriate plant material, including vines on overhead trellises, wherever possible.

Policy CD 1.9.4: Screening shall be provided for utility equipment and appurtenances, including but not limited to water backflow devices, utility boxes,

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meters and irrigation equipment; such screening shall be shown on the approved landscape plans, and may include walls, landscaping, or other approved methods.

Policy CD 1.9.5: Outdoor storage areas shall be completely screened from public view. Where possible, these areas shall be placed behind buildings to screen them from public rights-of-way.

Policy CD 1.9.6: Require that new utilities be installed underground wherever feasible; require screening of utility vaults, transformer boxes, backflow devices and other similar appurtenances within sites and along streetscapes, through planting and solid walls which are compatible with the surrounding area.

Objective CD 1.10: All developments should relate to human scale.

Policy CD 1.10.1: Design elements should be used near the ground to provide visual reference points for distance and height which can be easily seen from the street or sidewalk. These elements may include windows, doors, changes in color or material, decorative hardware, awnings, porches, or other similar features.

Policy CD 1.10.2: Promote use of architectural elements on long or tall building facades, in order to avoid long or tall blank walls which appear monolithic and uninviting.

Policy CD 1.10.3: Promote the use of smaller, interconnected open space areas, which are more effective in encouraging outdoor use than large expanses of space in which people feel less secure.

Policy CD 1.10.4: Where high block walls are required for sound attenuation or other buffering purpose, require that the visual impact of the wall height be minimized through use of stepped landscape planters or other similar measures.

GOAL CD 2: Enhance a "sense of place" within Palmdale by emphasizing the City's environmental setting, natural amenities, and human resources.

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Objective CD 2.1: Create a major focal point for community and civic activities which is centrally located, and minor focal points located within neighborhoods throughout the City, which are easily accessible, attractive, and which promote community interaction.

Policy CD 2.1.1: Through adoption and implementation of a Downtown Revitalization Plan, develop the downtown area into a major civic center providing multiple services and activities which create a focal point for the community in a pedestrian-oriented environment.

Policy CD 2.1.2: Utilize existing and planned facilities throughout the City to create neighborhood focal points, including parks, schools, community centers, a proposed college site, historic sites, or other similar features.

Policy CD 2.1.3: Create public spaces which can be used for multiple purposes, in order to encourage social interaction within neighborhoods and districts.

Objective 2.2: Integrate the built environment with the natural environment.

Policy CD 2.2.1: Require drought tolerant vegetation and water conserving irrigation systems within landscaping themes for new development.

Policy CD 2.2.2: Allow use of hardscape along with plant materials in landscaping designs as a water conservation measure.

Policy CD 2.2.3: Promote incorporation of Joshua trees and other native vegetation within landscape areas where appropriate.

Policy CD 2.2.4: Building and site designs should be sensitive to the desert environment with respect to building placement and orientation; window size, placement and design; use of landscape and architectural elements offering protection from heat and wind; and use of solar heating and cooling techniques. Passive solar design techniques should be used in building architecture, including south-facing windows, recessed windows, avoidance of large west-facing windows, and provision of sufficient building overhangs to shade interiors from hot summer sun.

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Policy CD 2.2.5: Landscape design should improve the environment within and adjacent to new developments by reducing heat, glare and noise, and by promoting ground water recharge, retardation of storm water runoff, and improvement of air quality.

Policy CD 2.2.6: Design of new developments should provide buffering and screening between natural and built environments, where appropriate.

Policy CD 2.2.7: Landscape and grading plans for new development should limit removal of viable mature trees, and provide for replacement of a sufficient number of trees to safeguard the ecological and aesthetic environment.

Policy CD 2.2.8: Site grading should match slopes and topographic features of the adjacent area, avoiding abrupt or unnatural changes of grade.

Objective CD 2.3: Emphasize and preserve the natural amenities and cultural features within Palmdale which contribute to the community's identity.

Policy CD 2.3.1: Ensure that the hillsides bordering the south side are maintained as a distinctive scenic backdrop for the City, through implementation of hillside management and grading policies contained in the General Plan and applicable ordinances.

Policy CD 2.3.2: Identify and preserve unique cultural and historic buildings and features in order to enhance community character.

Policy CD 2.3.3: Protect and enhance significant vistas and panoramas within the City of surrounding mountains, open space areas, and special landmarks, including but not limited to the following:

- a. Views of Lake Palmdale, Una Lake and Barrel Springs;
- b. Views of the valley floor from hillside areas, including hillside roadways;
- c. Views from scenic corridors, as identified in the Environmental Resources Element.

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Policy CD 2.3.4: Protect views of scenic areas from existing development, and enhance views for new development wherever feasible, through the following means:

- a. Require open view fencing (such as wrought iron with pilasters) instead of solid masonry walls where subdivision perimeter walls abut scenic roadways, to the extent feasible;
- b. Ensure that new structures within subdivisions do not obscure significant scenic views from uphill development, to the extent feasible;
- c. Prohibit new billboards along designated scenic roadways;
- d. Ensure that new development in locations which are highly visible from hillside areas and/or scenic roadways maintains a high quality of design and construction.
- e. Promote the use of view fencing in hillside residential areas to protect good views for all residences, to the extent feasible.

Objective CD 2.4: Create a sense of arrival to Palmdale at major entrance points to the City, and enhance major focal points at designated locations throughout the City to create a unified sense of place.

Policy CD 2.4.1: Identify major entry points to the community which may be enhanced to create distinctive "gateways" to the City, which may include but not be limited to the following areas:

- a. Four Points (generally located at the intersection of Pearblossom Highway and Ft. Tejon Rd);
- b. Sierra Highway at Avenue M; major arterial crossings (Avenue M, Avenue S, Pearblossom Highway);
- c. 10th Street West and Avenue M;
- d. Avenue N and 50th Street West;

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- e. The intersection of Pearblossom Highway, 25th Street East and Barrel Springs Road.

Policy CD 2.4.2: Identify major intersections in Palmdale which are or will be significant focal points for the City or district in which they are located, including but not limited to the following:

- a. Sierra Highway and Palmdale Boulevard;
- b. S. R. 14 at major interchanges (Avenue S, Palmdale Boulevard, Avenue P/10th Street West, Avenue M, and future P-8 freeway alignment/offramp system);

Policy CD 2.4.3: Utilize design features to promote a sense of identity for Palmdale at major gateways and focal points, including but not limited to the following:

- a. Distinctive and identifiable welcome or identification signs for the City;
- b. Thematic landscape treatment, including both hardscape and plant materials;
- c. Creation of view corridors through landscaping and site design on adjacent properties;
- d. Lighting;
- e. Streetscape or interchange design features, including medians, parkways, cloverleaf areas and landscape easements;
- f. Enhanced paving.

Objective CD 2.5: Recognize and encourage diversity of lifestyles in the community design for Palmdale.

Policy CD 2.5.1: Establish appropriate design standards for urban, suburban and rural lifestyles.

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Policy CD 2.5.2: Recognize neighborhoods having a distinctive character, and encourage them to develop their own identity through use of appropriate design standards.

GOAL CD 3: Recognize and maintain the rural character of large-lot residential development within the planning area, through establishment of rural development standards appropriate for these areas.

Objective CD 3.1: Establish street design and construction standards appropriate for rural residential areas where the predominant lot size is one acre (net) or larger.

Policy CD 3.1.1: Adopt and apply Rural Improvement Standards to public improvements in rural areas.

Policy CD 3.1.2: Coordinate street design with adopted trail plans in conformance with the Park, Recreation and Trail Element of the General Plan.

Policy CD 3.1.3: Work with Los Angeles County to establish street lighting standards for rural areas to preserve views of night-time skies and minimize glare, while maintaining public safety.

Policy CD 3.1.4: Promote use of wall and fence design and materials appropriate for rural areas, such as split rail, wood, "wood-grained" precast concrete, or pvc rail fencing.

Objective CD 3.2: Maintain an open, spacious development pattern in rural areas.

Policy CD 3.2.1: Adopt standards for setbacks, lot width and depth, and building separations appropriate for rural residential and accessory animal uses.

Policy CD 3.2.2: Where lower density residential development faces higher densities across a street, lot widths and frontages on both sides of the street should be compatible to the extent feasible; wider lot widths on the smaller lots may be required to maintain continuity along the street frontage.

Policy CD 3.2.3: Houses should be plotted on lots so as to maintain a reasonable opportunity for the keeping of horses and other animals, unless

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codes, covenants and restrictions prohibit the keeping of large animals on the lot.

Objective CD 3.3: Ensure that rural residential homes have access to local, collector and regional trail systems.

Policy CD 3.3.1: Trail connections from residential subdivisions to local, feeder and regional trails should be provided in order to connect discontinuous trails and provide access to recreation facilities.

Policy CD 3.3.2: Where appropriate, rural residential lots should provide easements for trails at the rear or side of the lot.

GOAL CD 4: Promote safe, functional, attractive single family residential neighborhoods, integrated with the surrounding community, and easily accessible by multiple transportation modes.

Objective CD 4.1: Subdivision design should ensure a functional and safe living environment for residents on each lot created.

Policy CD 4.1.1: To provide adequate buffering from arterial streets and more intensive uses, lots which back onto these streets or uses shall have increased lot depths and rear setbacks.

Policy CD 4.1.2: Corner lots shall be wider than interior lots.

Policy CD 4.1.3: Subdivision design shall avoid the following lot types, to the extent feasible: long flag lots; double frontage lots on interior streets; lots which side onto the rear of other lots; lots which share common property lines with several other lots; and key lots.

Policy CD 4.1.4: Flag lots shall be used only where it can be demonstrated that their use will minimize grading or provide some other benefit to the project, and that the resulting lot configuration is not detrimental to the property owner or the surrounding neighborhood.

Policy CD 4.1.5: Where curvilinear street alignments are used on residential streets, resulting lot sizes and frontages shall be generally uniform.

Policy CD 4.1.6: Any fencing, retaining walls, slopes, landscaping and other features shall be located in a manner which provides adequate driver sight distance at intersections and driveways.

Policy CD 4.1.7: To provide buffering from adjacent non-residential uses, such as commercial or institutional uses, lots abutting these uses shall have increased building setbacks and yard areas.

Policy CD 4.1.8: Subdivision design which creates the need for perimeter walls adjacent to local streets onto which houses face shall be strongly discouraged.

Policy CD 4.1.9: Property lines should be located at the top of rear and interior side yard manufactured slopes so as to provide for ease of maintenance.

Policy CD 4.1.10: Rear yards containing manufactured slopes shall be designed to avoid adverse impacts on residents, through the following means:

- a. Rear yards shall be of adequate depth to provide usable yard area and adequate room for accessory structures, exclusive of slope area.
- b. Grading, plotting and architectural means to limit rear yard slope heights shall be encouraged.

Policy CD 4.1.11: Subdivision design shall minimize land use conflicts with adjacent uses through placement of streets, parkways, open spaces, greenbelts, landscaping and trails, rather than through creation of tall perimeter walls.

Policy CD 4.1.12: Residential lots should be designed to accommodate parking of recreational vehicles on the owner's property, screened from public view.

Policy CD 4.1.13: Residential driveways shall be located as far as practical from street intersections.

Policy CD 4.1.14: In order to ensure that the residential quality of development desired by the City is maintained, require that any proposal to establish single family detached housing on lots less than seven thousand (7000) square feet in area shall be reviewed by the City Council.

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Objective CD 4.2: In residential subdivisions, promote diversity within the context of an overall design theme, to provide a visually attractive neighborhood which relates well with its surroundings.

Policy CD 4.2.1: Architectural treatment to all sides of structure(s) should be considered in the design for each lot.

Policy CD 4.2.2: Architectural design features and materials used on the sides and rear of a house should be similar and conform to those used on the front facade, in order to maintain integrity of design and materials throughout the structure.

Policy CD 4.2.3: Architecture should be compatible with the character of the surrounding neighborhood, considering building style, form, height, size, color, material and roofline.

Policy CD 4.2.4: Rooflines should be compatible with other roofs along the street; larger buildings should have more varied roof massing and/or variation in heights.

Policy CD 4.2.5: Rear elevations of units backing up to perimeter streets should have varied roof designs to provide a pleasant and varied streetscape.

Policy CD 4.2.6: Exterior building designs of houses within a neighborhood should achieve a consistent level of quality.

Policy CD 4.2.7: Architectural styles should be compatible within a subdivision and within the larger neighborhood.

Policy CD 4.2.8: Earth-tone colors should be used for primary structures; more vibrant colors should be limited to accents, and trendy colors which may become quickly outdated should be avoided.

Policy CD 4.2.9: Variation in roof colors should be provided within a subdivision and within a larger neighborhood context, in a manner which is compatible with the district.

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Policy CD 4.2.10: One story massing should be encouraged on corner side yards.

Policy CD 4.2.11: Shadow patterns created by architectural elements such as overhangs, reveals and recesses should be used to contribute character to the buildings and aid in climate control.

Policy CD 4.2.12: Identical or similar elevation schemes should not be used on adjacent lots, or on lots facing each other across a street; variety should be present along the street frontage.

Policy CD 4.2.13: Front building setbacks should be varied between all dwellings within a block to provide visual relief. Greater variation of setback should be provided on larger lots (1/2 acre or greater).

Policy CD 4.2.14: Neighborhoods should be designed to ensure that garages do not dominate the residential streetscape through use of design techniques, including but not limited to the following:

- a. A variety of garage treatments should be used, such as side entry, detached and semi-detached, or rear entry.
- b. Some elevations in the neighborhood should set the garage at least five feet behind the setback for the dwelling unit.
- c. Elevations should provide architectural emphasis for the front door through use of porches or other details, and should visually downplay the garage door as an architectural feature.

Policy CD 4.2.15: Houses should be oriented to focus on good views.

Policy CD 4.2.16: Subdivision design should maximize opportunities for passive solar heating and cooling, by use of the following measures:

- a. Giving living areas of structure maximum exposure to sunlight;
- b. Maximizing use of south-facing windows;

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- c. Use of recessed windows;
- d. Avoidance of large west-facing windows;
- e. Use of eaves and overhangs;
- f. Planting of deciduous trees along the south and west-facing elevations, to provide shade in the summer and heat in the winter.

Policy CD 4.2.17: Promote the use of street trees and front yard landscaping to create a pleasant neighborhood environment, by providing shade, wind breaks, visual interest and a buffer between residences and streets, through the following means:

- a. On residential subdivisions having a lot size of one half acre or less, require that the developer or builder install front yard landscaping.
- b. Require the developer to install street trees in all single family neighborhoods.

Policy CD 4.2.18: Any reduction in required street or sidewalk improvements as permitted by Policy C1.3.1.g in the Circulation Element shall result in additional yard area for adjacent residences or other amenity for the neighborhood.

Objective CD 4.3: Arterial and collector streets serving residential neighborhoods should contain varied streetscapes and views.

Policy CD 4.3.1: Require that adequate landscaping be provided on all arterial streets between back of sidewalk and any perimeter wall to ensure buffering of adjacent residential uses and create an attractive streetscape.

Policy CD 4.3.2: Subdivision design should avoid street and lot patterns which necessitate creation of long, unbroken perimeter walls lining arterial and collector streets, through the following means:

- a. Subdivision design shall alleviate the need to construct perimeter walls of excessive height for noise attenuation through use of alternate sound

attenuation techniques, including increased building setbacks, combinations of walls and landscaped berms, or other approved methods.

- b. Side-on cul-de-sacs should be used adjacent to arterial streets to provide pedestrian access and view corridors between the subdivision and the arterial.
- c. Where fencing is used adjacent to a side-on cul-de-sac, open fencing such as wrought-iron with decorative pilasters should be used to provide view corridors. Decorative open fencing should be used adjacent to subdivisions instead of block walls wherever practicable.
- d. Variation should be provided in the width of landscape easements and/or landscape setbacks, to reduce the effect of an otherwise long, unbroken streetscape.
- e. Variations and undulations in plant massing should be used to create a sense of interest along the street.
- f. Meandering sidewalks may be used in combination with landscaping to provide interest in the streetscape, provided that design of meanders is irregular and uses both vertical and horizontal elements to achieve a natural look.

Policy CD 4.3.3: Walls adjacent to major thoroughfares should be decorative and have varied setbacks to increase visual interest. Wall design and materials should use similar thematic elements within a neighborhood or district, to create a more unified streetscape.

Policy CD 4.3.4: Landscaping adjacent to perimeter walls should be designed to discourage graffiti, through the following measures:

- a. Utilize vine-like plantings to physically cover perimeter walls.
- b. Utilize large shrub massing and evergreen trees wherever possible to screen perimeter walls.

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- c. Utilize plant material in planters adjacent to perimeter walls that discourage access to the walls, such as plants with stickers or thorns; plants that are dense and therefore difficult to travel through; or plants that are sticky or prickly, that provide an unpleasant experience and are not intended for pedestrian traffic.

Objective CD 4.4: Fences and walls within residential areas should contribute to the neighborhood identity and enhance community design.

Policy CD 4.4.1: Fencing and retaining walls on corner side yards should be of decorative materials and construction.

Policy CD 4.4.2: Wood fencing exposed to public view shall be treated with stain, paint or seal.

Policy CD 4.4.3: Retaining walls exposed to public view shall be of decorative masonry construction. Where these walls are of substantial height, crib walls with landscaping may be required, subject to approval of the City Engineer. Plant material selection and planting should encourage the covering of the crib wall, either through vine-like plant material or large evergreen trees and shrubs that provide screening in front of the crib wall.

Policy CD 4.4.4: Fencing along residential property lines may be wrought iron to maintain views, where appropriate.

Objective CD 4.5: Residential neighborhoods shall be integrated with interconnected networks linking parks, schools, services and other neighborhoods.

Policy CD 4.5.1: Subdivision design shall provide connectivity within and between neighborhoods, rather than creating isolation through street design and perimeter walls.

Policy CD 4.5.2: Reasonable crossing paths shall be provided through residential neighborhoods.

Policy CD 4.5.3: Pedestrian access via side-on or back-to-back cul-de-sacs is encouraged to facilitate circulation between neighborhoods.

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Policy CD 4.5.4: New development should consider existing travel routes through the property, and incorporate alternative routes where feasible to provide necessary connections to community facilities.

Policy CD 4.5.5: Developments adjacent to regional trails shall provide a means of public access from residential lots to the trail system.

Policy CD 4.5.6: Development shall facilitate convenient access to parks, playgrounds and schools.

Policy CD 4.5.7: Pedestrian accessways shall be designed with good visibility from adjacent properties and/or rights of way, to provide for safety of users.

Policy CD 4.5.8: Maintenance of any pedestrian accessways outside of the public right-of-way shall be provided for as approved by the City.

GOAL CD 5: Multiple family housing shall provide a safe and pleasant living environment for residents and shall be integrated with surrounding neighborhoods so as to enhance the sense of community, through implementation of the following objectives and policies. (Exceptions may be granted for smaller projects of six or less units, or where these measures can be shown to be inappropriate).

Objective CD 5.1: Site designs for multiple family developments shall relate to surrounding properties with respect to building locations, orientation, massing and setbacks.

Policy CD 5.1.1: The street frontage created by multi-family projects shall function effectively with existing development in the vicinity, through the following means:

- a. Setbacks should be consistent with those used on adjacent properties.
- b. Height and massing shall be compatible with adjacent development; for example, if the project faces single-story residential development, massing adjacent to the street should be single-story.

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- c. Landscape type and placement should be compatible with that currently in use on the street.
- d. Building orientations can be skewed to create a variety of view orientations on site and create visual interest on the streetscape.

Policy CD 5.1.2: Where parking areas are placed adjacent to a perimeter street, vehicles should be screened to a height of at least three feet by means of landscaping, low profile walls, or a lowering in grade of the parking area relative to the street.

Policy CD 5.1.3: Connections shall be made to trails, parks, schools and other community facilities to the extent feasible.

Objective CD 5.2: Multiple family projects shall create a safe environment for residents.

Policy CD 5.2.1: Common open space areas shall be placed so as to be visible from building entrances, windows of adjacent residences, and public streets to the extent feasible, in order to increase visibility for safety purposes.

Policy CD 5.2.2: Long, unbroken parking drives or large, undivided parking lots are discouraged in favor of dispersed parking courts placed near the units they serve. Parking spaces should be visible from and conveniently located near the units which use them, but should not be placed so that headlights shine into windows.

Policy CD 5.2.3: Parking areas, pedestrian walkways, and common areas shall be illuminated by lighting fixtures of a pedestrian scale at a level adequate to ensure safety of users. Where stairs or changes in grade occur, these areas shall be directly lighted.

Policy CD 5.2.4: Trash enclosures shall be conveniently located throughout the development, and shall be constructed with a walk-in entrance as well as solid metal gates for ease of use by all residents.

Objective CD 5.3: Create a safe and convenient circulation system for vehicular, pedestrian and bicycle traffic in multi-family projects.

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Policy CD 5.3.1: Consideration shall be given to sharing access with other adjacent developments, where feasible.

Policy CD 5.3.2: Pedestrian circulation pathways shall be safe and efficient, and shall not route pedestrians through parking areas, across vehicular travel paths, or through landscape planters to reach destination points.

Policy CD 5.3.3: Pedestrian routes to transit stops shall be provided.

Policy CD 5.3.4: A minimum of two means of ingress and egress shall be provided.

Policy CD 5.3.5: The overall circulation system shall be logical and understandable for the user, avoiding circuitous or confusing travel paths and dead ends.

Policy CD 5.3.6: Project driveway entrances shall be enhanced with paving and landscaping to emphasize the entryway; building entrances shall be enhanced with landscaping, lighting and architectural treatment for ease of identification.

Policy CD 5.3.7: For gated communities, adequate stacking room and parking stalls shall be provided outside of the gates, so as to eliminate any queuing or parking of visiting vehicles on public streets. Internal stacking should not interfere with internal circulation.

Objective CD 5.4: Design of multiple family developments should enrich the lives of residents by providing a variety of activities, places to meet and talk, visual interest in the surroundings, and screening of unsightly uses.

Policy CD 5.4.1: Dwelling units shall be oriented to focus on good views.

Policy CD 5.4.2: Where feasible, significant trees, areas of vegetation or other natural features shall be preserved within the site design.

Policy CD 5.4.3: Drive aisles shall be treated like an internal streetscape, with curvilinear alignments and parkway trees and landscaping.

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Policy CD 5.4.4: Adequate open space shall be provided in usable locations and configurations to provide appropriate recreation facilities for residents, including but not limited to tot lots, picnic areas, play courts and large lawn areas. Adequate seating shall be provided in these areas in a configuration conducive to conversations.

Policy CD 5.4.5: Private open spaces provided for individual units shall be contiguous to the units they serve and screened from public view. Patios provided with trellises that are planted with deciduous vines that provide shade in the summer and sun in the winter shall be encouraged.

Policy CD 5.4.6: Common use areas shall be located for residents' safety and convenience; for example, laundry areas should be located near children's play areas, to provide for visibility by caretakers.

Policy CD 5.4.7: Architectural treatment of buildings shall use variation in roof lines, massing, height, relief and wall planes to break up the building bulk and create visual interest. Architectural treatments shall be included on all sides of structures.

Objective CD 5.5: Ensure that manufactured housing communities meet the City's residential design goals.

Policy CD 5.5.1: Require that the applicable residential design goals, objectives and policies be addressed in the design of manufactured home parks and subdivisions, in addition to the following design criteria:

- a. Utilize greenbelts/walkways to separate rows of mobilehomes, provide pedestrian access, and maintain aesthetically pleasing open space areas;
- b. Provide recreational amenities that are conveniently located and accessible via pedestrian pathways, with facilities for all age groups utilizing the park;
- c. Create unit privacy and individuality by use of varied unit footprints;
- d. Provide functional and accessible common open space;

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- e. Provide functional and defined private yard space to each mobilehome unit;
- f. Utilize curvilinear streets, short street segments, cul-de-sacs, or a combination thereof as opposed to long, narrow alley-like drives;
- g. Incorporate landscape islands and street trees on private interior streets and drives;
- h. Vary garage and unit setbacks;
- i. Provide guest parking, distributed throughout the project;
- j. Screen recreational vehicle storage and buffer those areas from adjacent residential uses;
- k. Provide at least two means of public access to mobilehome communities;
- l. Provide sidewalks on at least one side of private drives and streets, and ensure that the internal pedestrian walkway system connects logically to off-site walkways to provide convenient access to schools, parks, and commercial areas;
- m. Provide an enclosed garage to each unit, with an adequate setback to allow tandem parking in front of the garage;
- n. Provide trash enclosure areas, properly screened, throughout the park within a reasonable distance from each unit;
- o. For gated communities, provide adequate guest parking and stacking room at project entrances;
- p. Provide adequate setbacks between the park and adjacent residential designations, with adequate screening through a combination of landscaping, walls, berms, trails, or other means.

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Policy CD 5.5.2: Ensure that adequate provision is made for ongoing maintenance of manufactured home parks.

Objective CD 5.6: Adopt standards for senior housing projects to provide for a living environment which meets people's needs in these communities over time.

Policy CD 5.6.1: In addition to the design policies contained in this Element, consider the special needs of senior residents in the design of housing projects which are built specifically for them.

Policy CD 5.6.2: Ensure that the design of senior housing projects provides appropriate features to accommodate the needs of residents as they may change over time during their residency at the project.

GOAL CD 6: Commercial and industrial development in the City of Palmdale should enhance the community's economic vitality by providing a high quality environment for shopping and working.

Objective CD 6.1: Site planning for commercial/industrial development shall be integrated with adjacent properties and provide for optimum use of the site.

Policy CD 6.1.1: Street setbacks on adjacent properties should be considered in the site design, so that the street functions well as a whole.

Policy CD 6.1.2: Building and parking layout should be varied to avoid a "strip-commercial" appearance, in which buildings are plotted in a straight row with parking along the entire street frontage; building placement should be varied to avoid parking areas which dominate the streetscape.

Policy CD 6.1.3: Where a commercial or industrial site adjoins residential development, site design should provide a transition of use and scale; increased setbacks, one-story massing at the interface area, and dense landscaping are preferred techniques.

Policy CD 6.1.4: Building and parking placement should create pedestrian spaces such as plazas; outdoor spaces should have clearly defined shapes reflective of careful planning, rather than appearing to be left-over areas between structures.

Community Design Element

Policy CD 6.1.5: Freestanding structures should be oriented with their major entry toward the street where access is provided; the major facade should be parallel to the street.

Objective CD 6.2: Achieve effective access and circulation for all site users, and minimize traffic impacts to adjacent properties, through site design.

Policy CD 6.2.1: Development patterns which route traffic to or from commercial or industrial destinations through residential neighborhoods on local or collector streets shall not be allowed.

Policy CD 6.2.2: The location and design of structures, parking areas, access points and on-site circulation routes should facilitate effective circulation for pedestrians, passenger vehicles, and service vehicles; conflict points between these users should be avoided.

Policy CD 6.2.3: Except as otherwise approved, a minimum of two means of ingress and egress shall be provided to each site.

Policy CD 6.2.4: Access points should be aligned with existing driveways, intersections, and median openings, where appropriate.

Policy CD 6.2.5: Textured pavement should be provided to emphasize project entrances.

Policy CD 6.2.6: Access points shall conform to the City's policies for access controls. Consideration should be given to sharing access between adjoining properties, in order to limit curb cuts and provide greater efficiency of on-site circulation, where appropriate.

Policy CD 6.2.7: Adequate vehicle stacking shall be provided at project entrances and exits, and for all drive-through facilities.

Policy CD 6.2.8: On-site pedestrian walkways should be clearly delineated with special pavement, landscaping and lighting. Each development shall contain at least one clearly designated route for pedestrians connecting the street, the parking area, and the main entrance(s).

Community Design Element

Policy CD 6.2.9: Pedestrian walkways and seating areas should be visible from structures or public rights of way to the greatest degree possible, to provide surveillance of these areas by other users for safety purposes.

Policy CD 6.2.10: Pedestrian walkways should provide logical links to the public sidewalk, crosswalks, transit facilities, and to adjacent properties if appropriate.

Policy CD 6.2.11: For pedestrian walkways, a raised walkway is preferred, with crosswalks delineated by pavers or decorative concrete; pedestrian scale lighting, trees and landscaping, arcades, awnings or other shading devices shall be provided adjacent to the walkway where appropriate.

Policy CD 6.2.12: Within industrial developments, sidewalks shall be provided adjacent to major arterials, secondary arterials and collectors; on local streets, sidewalks shall be provided where they are needed to provide logical connections for pedestrians.

Policy CD 6.2.13: Where bus shelters are provided adjacent to or within a development, they should be located near accessways or activity centers rather than in isolated locations; bus shelter design shall be similar to and compatible with the main structure(s) and site design, using similar architectural features and materials.

Objective CD 6.3: Ensure that building placement, orientation and design create an attractive business environment.

Policy CD 6.3.1: Ensure that building orientation and arrangement on the site is compatible with adjacent uses and development, through the following measures:

- a. Building orientation should respect the orientation of surrounding streets and buildings. In general, buildings should be parallel to the streets they face.
- b. Building height, bulk and area should provide an orderly transition of scale with respect to adjacent lots. Stair-stepping may be used to break up the mass of large buildings. Medium- and high-rise buildings should be made less imposing by physically stepping them back from the street level.

Community Design Element

- c. Buildings should be designed to fit the context of their surroundings with respect to architectural style, massing, proportion, and other characteristics.
- d. Buildings adjacent to historic structures should be sensitive to, but not necessarily mimic, historic architectural styles.
- e. Building entrances should be easily identifiable and accessible from sidewalks, parking lots and public transit facilities.

Policy CD 6.3.2: Ensure that architectural design provides visual interest, creates an attractive environment for shopping and business, and maintains a high quality character of development over time, through the following measures:

- a. Architectural treatment shall be provided on all sides of structures, and rear elevations should be designed to be visually attractive. Articulation shall be provided to the building plane, and vertical variation of the roof line shall be provided.
- b. Building articulation should be provided to create a sense of human scale at ground level; expanses of blank wall, devoid of articulation or embellishment, should be avoided.
- c. For commercial projects, the roof should be varied through the use of vertical separations, varying the roof structure, parapet line or ridge line.
- d. Storefront designs for shopping centers should complement the architectural style, and provide visual interest and variation. Suggested design elements include providing offsets or bays; using a strong base material; variation of storefront treatment; multi-pane windows; detail at window and door openings; overhangs and awnings; shutters; and other similar features that engage the eye.
- e. Architectural focal points should be provided to create strong entry statements and provide a sense of place; towers, domes, massing, color, trellises, fountains, plazas, public art or other similar means are encouraged for this purpose.

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- f. For industrial buildings, the office portion of the building should be the architectural focus, and should appear as an office use with respect to the amount of architectural detail and glass provided.
- g. Architectural styles should reflect a classic or timeless quality, rather than using trendy designs that will become quickly dated. Building designs should not solely reflect corporate identity, or function as advertising devices, but should conform to and enhance the surrounding district.

Policy CD 6.3.3: Building orientation, materials, and entrances should consider seasonal high winds and other climatic conditions, through the following measures:

- a. Service areas and roll-up doors should be oriented away from the windward side of buildings.
- b. Outdoor pedestrian or employee seating areas should be protected from wind and provided with shade, especially between the hours of 11:00 a.m. to 2:00 p.m.
- c. Buildings should minimize western exposure and use architectural features for shade, where appropriate.
- d. Building placement should avoid creating wind tunnels.
- e. Building exposures subject to solar intensity should minimize use of glass.
- f. Landscaping and architectural relief should be used to reduce heat gain.
- g. Buildings should be designed for energy efficiency.

Policy CD 6.3.4: Ensure that building materials and colors are compatible with adjacent uses, and enhance the business districts of Palmdale in both the short and long term, through the following measures:

- a. Building colors and materials should be considered in the context of the surrounding area, to create a sense of unity in the district.

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- b. Colors and materials that are typical of and compatible with the desert environment should be used to help reduce heat and glare, in keeping with Palmdale's natural setting; large expanses of bright white should be avoided to reduce glare, and entire buildings of bright or pastel colors are discouraged.
- c. Exterior surfaces should have a reflectivity of 20 percent or less.
- d. Accent colors may be used for architectural details; however, too many bright colors which overpower the building design should be avoided.
- e. For industrial buildings, acceptable building materials include concrete, textured concrete, textured block, brick, granite, stone and similar materials; two primary building materials or treatments are recommended for industrial developments.
- f. Use of corrugated or prefabricated metal buildings should be discouraged in areas subject to high visibility by the public, including along arterial streets or the freeway corridor. Any metal buildings shall comply with the applicable design criteria contained in this Element.

Objective CD 6.4: Parking lot design and orientation should function well for site users and present an attractive appearance to enhance the business environment.

Policy CD 6.4.1: Consideration should be given to the types of users desired and providing sufficient parking for future users, rather than trying to maximize building floor area.

Policy CD 6.4.2: Surface parking lots should be designed to minimize the impacts of large paved areas on adjacent properties and rights of way, and to provide for ease of use, through the following measures:

- a. Parking should be evenly distributed throughout the site, in a manner which matches anticipated parking demands.

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- b. Parking areas should be screened from public view with mounding, landscaping, low walls, grade differentials, building orientation, or a combination of these techniques. Automobiles should not be visible from the right-of-way below the average height of the headlights (three feet).
- c. Joint use of parking areas should be encouraged, to reduce impervious surface area.
- d. Parking should be designed for safety and ease of use, in conformance with applicable standards.

Policy CD 6.4.3: Parking lot landscape design should provide shading for parked vehicles and screening to break up and soften the appearance of large expanses of hard paved surfaces.

Policy CD 6.4.4: Parking structures shall be designed to be convenient, safe and efficient, through the following measures:

- a. Adequate lighting shall be provided within and adjacent to structures to provide for public safety while avoiding glare onto adjacent properties.
- b. Adequate staging areas for vehicle queuing shall be provided within the parking structure; no vehicle stacking shall be permitted on public streets.
- c. Visibility shall be provided at pedestrian crossings at entrance and exit points, to minimize conflicts between vehicles and pedestrians.
- d. Where a parking structure is located adjacent to public streets and sidewalks, street-level space should be occupied by pedestrian oriented retail uses, arcades, or other similar uses to create interest and activity at the street.
- e. Building form, materials, scale and colors shall be compatible with other structures and uses in the vicinity.
- f. Landscaping should be provided on each level through features such as window boxes or planter boxes.

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- g. Pedestrian facilities within the parking structure (such as stairways, walkways and elevators) shall be located to ensure clear visibility of pedestrians from vehicles, and to avoid pedestrians crossing vehicle circulation aisles.

Objective CD 6.5: Pedestrian elements and open space areas within commercial and industrial projects shall be designed to meet the needs of site users and enhance the development.

Policy CD 6.5.1: Open space and pedestrian oriented area within commercial/industrial development shall be accessible and provide for comfort of users, through the following measures:

- a. Open space areas shall be designed to human scale; a series of smaller areas with features encouraging interaction and activity is preferable to large, expansive spaces where people feel less secure.
- b. Any building additions or alterations proposed within a development should not eliminate existing pedestrian amenities or walkways without providing alternatives within the site plan.
- c. Open spaces shall be provided with attractive features, comfortable seating areas, shading, and easy access, where appropriate. Comfortable, attractive street furniture and fixtures should be provided, including seats and tables, trash receptacles, information kiosks, drinking fountains, lighting, and other similar features, where appropriate.
- d. Walkways should be provided with overhangs or canopies to provide shade.
- e. If water features are used for a landscaping focal point, they shall be designed and sited for maximum impact and minimum water consumption. Such water features shall be sited to include consideration of high winds experienced in the Antelope Valley and should be predominantly used only in small spaces having an intimate scale. Non-water consuming features are preferred due to the desert climate.

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- f. If public art is used for a focal point, it should be integrated into the overall project design.
- g. Industrial projects should be encouraged to provide plazas where employees can rest and eat lunch, preferably away from public entrances to buildings, loading areas, and other high-traffic areas. Tables, benches, and shade trees or structures should be provided.

Objective CD 6.6: Lighting, walls and fences, and street furniture within commercial/industrial development should be designed to integrate with the project and the surrounding area.

Policy CD 6.6.1: The design and location of lighting fixtures should ensure public safety and minimize adverse impacts, through the following measures:

- a. Lighting should be located to provide illumination for the security and safety of on-site areas such as parking, loading, shipping, walkways, and work areas; in addition, all building entrances should be well lighted.
- b. The design of light fixtures and their structural supports should be architecturally compatible with and of similar character to the development within the site and in the context area.
- c. Lighting fixtures should be shielded to confine light spread within the site boundaries. Security lighting should be adequate but not overly bright so as to cause off-site glare.
- d. Lighting which provides attractive views of the site and buildings at night is encouraged.

Policy CD 6.6.2: The design of walls, fences, hardscape, and street furniture should be integrated with the overall architectural design for the project, and should consider the following:

- a. If not required for a specific screening or security purpose, walls should not be used in commercial areas. Where required for screening or security, walls should be kept as low as possible in height.

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- b. When security fencing is required, it should be a combination of solid walls with pilasters and decorative view fencing, or short solid wall segments interspersed with view fencing such as wrought iron.
- c. Where a commercial, office or industrial project abuts residential uses, buffering should include adequate setbacks, landscaping and change of grade instead of solid walls to the extent feasible. Solid walls should be avoided where they would obstruct scenic views from adjacent residential development.
- d. Within industrial areas, security fencing may be chain link, provided that it is screened from public view by building placement or landscaping.

Objective CD 6.7: Signs should be designed as an integral part of the architecture for commercial/industrial development, in order to create a unique image for each project while contributing to the overall character of the area.

Policy CD 6.7.1: Sign location and design should be integrated into the building architecture and site layout. Individual signs on a building facade should reinforce the character of the building and the effect of sign placement on adjacent parcels should be considered.

Policy CD 6.7.2: Sign design, construction and installation should allow for a sign to be replaced, removed or modified without structural damage to the building. Individual letters should be used, rather than canister type signs.

Policy CD 6.7.3: Signs should serve primarily as business identification, rather than as a form of advertisement.

Policy CD 6.7.4: Sign colors and materials should be compatible with and complement the building architecture.

Policy CD 6.7.5: Sign size and dimensions should be proportional to the scale of the building and the surface to which they are affixed; the sign area should be visually balanced with the building mass and height, rather than designed to meet the maximum standards.

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Policy CD 6.7.6: Where multiple tenants share a development, a consistent or uniform sign program should be used to provide a coordinated project theme of uniform design elements, including color, lettering style, and placement.

Policy CD 6.7.7: Signs should be located for maximum readability; simple messages, layout and color schemes make signs easier to read. Colors should be selected for good visibility during both daytime and nighttime hours.

GOAL CD 7: Establish design guidelines for mixed use projects in which commercial retail, office and residential uses coexist, to ensure that such developments are attractive and functional while minimizing conflicts between uses of different intensity.

Objective CD 7.1: Ensure that uses within mixed-use developments interact with and support each other, so that each component of the project derives benefit from the other.

Policy CD 7.1.1: Where housing is proposed within a mixed use project, residential units shall be conveniently located with respect to services and amenities within the project.

Policy CD 7.1.2: Where commercial or office uses are proposed within a mixed use project, such uses should be compatible with and provide services for residents of the project.

Policy CD 7.1.3: Design of mixed use projects should provide for attractive transitions between uses, rather than abrupt barriers or separations. Transition areas may be horizontal or vertical on the site.

Policy CD 7.1.4: Residential and commercial uses within mixed use projects should each have an identifiable design character; however, certain design elements should be carried throughout the project to create a sense of unity.

Policy CD 7.1.5: Where possible, common use facilities should be shared by different users throughout the project; joint use of parking, recreational facilities and open space amenities is encouraged.

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Policy CD 7.1.6: Mixed-use projects should strongly emphasize creation of a high-activity pedestrian-oriented environment during both daytime and nighttime hours.

Policy CD 7.1.7: Within mixed-use projects, commercial uses should be located closer to the street, in order to provide better visibility and access and to buffer residential uses from the street. Residential uses should be located in the interior of the lot, to provide for design of quiet residential open space and amenities away from the commercial areas and arterial streets.

Policy CD 7.1.8: Loading, service areas and trash enclosures for commercial uses shall be fully screened and separated from residential uses.

Objective CD 7.2: Access to and within mixed use developments should provide for safety and convenience of users, and minimize impacts on adjacent roadways.

Policy CD 7.2.1: Mixed use projects should be located adjacent to an arterial street, to provide for good access to the commercial portions of the project.

Policy CD 7.2.2: Separate vehicular access shall be provided from the street to the commercial and residential components of the project; however, vehicular connections between the residential and commercial portions of the project should be provided where appropriate. Residential areas may have gated access.

Policy CD 7.2.3: Access between the residential and commercial portions of the project should be provided for pedestrians and bicycles, with bicycle parking areas and pedestrian amenities conveniently located throughout the project.

Policy CD 7.2.4: Pedestrian walkways connecting residential and commercial portions of the project should be clearly delineated, safely lighted, provided with shade by landscaping or architectural means, and at least six (6) feet in width, except that where building walls abut the walkway on both sides the minimum width shall be twenty (20) feet.

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Policy CD 7.2.5: Pedestrian and bicycle access between the commercial portion of the project and adjacent off-site residential neighborhoods shall be provided in the site design.

Objective CD 7.3: Ensure that the intensity of use within both residential and commercial portions of a mixed-use project is appropriate within the context of the project, the surrounding neighborhood, and the community.

Policy CD 7.3.1: Except as permitted by the General Plan land use map designation, a mixed use residential project shall provide a minimum net lot area of 2500 square feet per dwelling unit; for purposes of calculating maximum density, only the portions of the project area to be used for residential uses, parking and amenities may be used.

Policy CD 7.3.2: The nature of commercial uses permitted within a mixed use development shall complement the residential portion of the project, so as to form a community or neighborhood environment. Commercial uses which draw primarily from a market area outside of the project, or which are of an intensity not appropriate adjacent to residential uses, shall be strongly discouraged.

Policy CD 7.3.3: Design and development standards for all uses within a mixed-use development shall conform to applicable policies and standards within the General Plan and City ordinances.

Objective CD 7.4: Ensure that mixed use development maintains a high quality of design.

Policy CD 7.4.1: Facades of non-residential buildings that face residential uses or pedestrian walkways shall be broken with architectural elements designed to provide variety and visual interest. Additionally, facades of non-residential uses that face pedestrian walkways shall contain a minimum of thirty percent openings (including windows or glass doors) in order to provide for visual interest and safety of pedestrians.

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Policy CD 7.4.2: At least one pedestrian-oriented amenity area shall be provided within each mixed-use project, which may include outdoor seating for restaurants, courtyards, parks, playgrounds, and similar uses. Such open areas shall conform to the following standards:

- a. The open space area shall be located adjacent to main accessways connecting the residential and commercial uses, and adjacent to the most active commercial uses.
- b. The minimum dimension of any open space area shall be not less than twenty feet.
- c. The open space area shall be bounded on at least one side by buildings which contain commercial uses characterized by high volumes of activity on the ground floor.
- d. Pedestrian seating shall be provided and may include benches, planters, stairs, restaurant or cafe seating.
- e. The open space shall be a minimum fifty percent shaded by a combination of trees, trellises, awnings, and similar elements.

GOAL CD 8: Use landscaping to reinforce community identity, to create a pleasant environment, to control erosion and promote natural percolation of storm water, to provide protection from wind and hot summer sun, and to integrate new development into the surrounding district.

Objective CD 8.1: Landscape design shall consider prevalent and successful landscape themes in the surrounding area, through the following measures:

Policy CD 8.1.1: Plant materials should be of similar size, height and density as in the surrounding area.

Policy CD 8.1.2: Where appropriate, street trees may be the same species for the length of a street or throughout an entire area, to achieve a continuity of form.

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Objective CD 8.2: Choice and placement of plant materials should reflect the context of the site.

Policy CD 8.2.1: Plants should be used to emphasize project and building entries; contrast with or reinforce building lines; soften hard lines, blank wall and pavement expanses; define outdoor spaces and delineate pathways; frame attractive views; and screen unattractive views and features.

Policy CD 8.2.2: Project entries and building entrances should be provided with special landscaping treatment, such as use of more intense planting, accent trees, raised planters and enhanced paving.

Policy CD 8.2.3: Plants should be selected for their year-round interest, as well as their form, texture and shape; simple plant palettes are preferred over complex schemes.

Policy CD 8.2.4: Size and spacing of landscape material should be consistent with the project size and relate well to the streetscape and adjacent properties.

Policy CD 8.2.5: Plant materials should be suitable for the desert environment and drought resistant, and should be grouped according to their watering needs.

Policy CD 8.2.6: At least fifty percent of the landscaped area should be covered with living groundcover, to minimize heat gain and reflective light; however, turf use should be minimized in favor of more drought resistant living groundcovers. Non-turf groundcover areas should be distributed in clusters, rather than uniformly, to be more in keeping with the natural desert environment.

Policy CD 8.2.7: The planting plan should call for mixed maturity of plant materials throughout the site.

Policy CD 8.2.8: The plant palette should consider safety and comfort of pedestrians. Plants that drop fruit, pods, bark, nuts or branches should be avoided, and trees with sharp edges such as joshuas should be avoided in pedestrian areas.

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Policy CD 8.2.9: A mix of evergreen and deciduous trees should be used along the streetscape for year-round interest. Evergreen trees should be used to block winter winds, screen unsightly features, and decrease heat loss.

Policy CD 8.2.10: Deciduous trees should be used on southern and western exposures for summer shade and winter sun.

Policy CD 8.2.11: Landscape design shall be coordinated with placement of site utilities, including but not limited to overhead lines, transformers, meter boxes, backflow devices, and similar equipment, in order to prevent obstruction of utilities while providing adequate screening.

Policy CD 8.2.12: Landscaping shall be maintained so as not to obstruct walkways; at least seven (7) feet of clear area shall be maintained underneath a tree canopy.

Objective CD 8.3.: Hardscape may be included in the overall landscape design, based on the following criteria:

Policy CD 8.3.1: Use of unshaded pavement should be moderate, to alleviate heat gain.

Policy CD 8.3.2: Pavement materials should minimize reflected heat and glare, through selection of materials, colors and textures.

Policy CD 8.3.3: Where practicable, pavement materials which permit water infiltration should be used.

Policy CD 8.3.4: In pedestrian traffic areas, pavement should be stable, firm, skid resistant, and without irregular surfaces.

Objective CD 8.4: Landscape design shall be sensitive to the desert environment as well as unique aspects of the site with respect to phasing of development, location, and other site features.

Policy CD 8.4.1: Irrigation systems shall be designed to minimize maintenance and water consumption.

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Policy CD 8.4.2: For phased development, interim landscaping shall provide for control of dust and weeds on the undeveloped portion of the site, and provision shall be made for ongoing maintenance.

Policy CD 8.4.3: An effort should be made to minimize removal of mature natural vegetation where possible, where such vegetation is of significant size, beauty and value. Mature trees can be used as a focal point in the overall landscape plan. Where these trees are preserved, they shall be protected in place with no variation in the finish grade and no impervious materials under the drip line of the protected tree.

Policy CD 8.4.4: Landscaping shall be provided for erosion control where appropriate, as required in the City's Engineering Design Standards.

Policy CD 8.4.5: Areas preserved for drainage retention or detention shall be landscaped to integrate with the overall landscape design.

Policy CD 8.4.6: Trees shall be provided adjacent to building walls to minimize the visual expanse of large, unbroken walls, especially adjacent to "big box" commercial and industrial buildings. Trees shall be planted at a maximum of thirty (30) feet on center and be located no closer than six (6) feet and no farther than ten (10) feet from the building walls, through use of tree wells or planters.

Policy CD 8.4.7: Where development is proposed at street intersections, a landscape focal point or visual landmark at the corner is recommended.

Policy CD 8.4.8: The location of plant materials should not obscure signs as the plants mature.

GOAL CD 9: Incorporate a high quality of design into planning for public buildings, capital improvement projects, rights-of-way, drainage facilities, open spaces, and other land uses owned or initiated by the City of Palmdale, to contribute to a cohesive sense of place, enhance the overall quality of development in the City, and perpetuate the image which the City wishes to create.

Objective CD 9.1: Streetscape designs shall enhance and unify the community, define different districts, and be sensitive to the desert environment

Policy CD 9.1.1: Streetscape designs shall reflect the character of existing adjacent and contiguous streetscapes. Street trees can achieve this desired effect while retaining options and creativity on the ground plane. Any desired transition from an existing street tree to a different street tree shall be provided in a manner which does not create an abrupt change.

Policy CD 9.1.2: Streetscape designs shall create a sense of place, order and direction for visitors arriving in the City or traveling from one district to another, through the following means:

- a. Changes in landscaping at important locations throughout the City;
- b. Use of enhanced streetscapes at important locations such as project entries or major intersections. Utilize enhanced plant materials, enhanced paving and site furniture, such as signs, flags, bollards, boulders or similar features, to denote important areas.

Policy CD 9.1.3: Promote ecologically sound landscape practices in streetscape design through the use of drought tolerant and native landscape material, the use of water efficient irrigation systems, and consideration of environmental factors that influence the landscaping.

Policy CD 9.1.4: Utilize medians in the streetscape design wherever possible to reduce the scale of the street and to buffer traffic from opposite directions. Berming within medians is encouraged to further provide screening between traffic lanes. Utilize non-living ground cover wherever possible to reduce nuisance water overspray and run-off onto the street.

Policy CD 9.1.5: Use streetscape design to break up the long and wide expanses of pavement, by meandering or stepping the landscaping; providing variations in vertical height through berming or raised planter beds; meandering of concrete mow strips or low walls; and variation in the height of the landscaping through selection of appropriate plant material.

Policy CD 9.1.6: Streetscape ground cover shall consist of a minimum sixty percent (60%) of living ground cover. Non-living ground cover selection shall consider the location and proximity to school bus stops and other areas

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frequented by children, so as to reduce use of rocks as projectiles. Non-living ground covers should promote low maintenance.

Policy CD 9.1.7: Streetscape design shall promote the protection of views and vistas through mature landscaping that frames and promotes views, without creating visual obstructions.

Policy CD 9.1.8: Provide for the comfort and safety of pedestrians along arterial streets, by promoting separation of the sidewalk from the curb by a landscaped parkway strip at least five (5) feet in width which contains street trees.

Policy CD 9.1.9: Enhance the streetscapes on major thoroughfares throughout the City, including but not limited to Palmdale Boulevard and Avenue S, by providing landscaping, undergrounding utilities, and completing street improvements where necessary. Where opportunities for wider landscaped setbacks exist due to utility easements or seismic setbacks, ensure that these areas are designed and maintained to enhance the streetscape.

Policy CD 9.1.10: Consider the use of distinctive light poles and street furniture on selected major thoroughfares, to enhance the sense of identity.

Policy CD 9.1.11: Explore all available means to install attractive bus stop shelters along major streets throughout the City, where appropriate.

Objective CD 9.2: Ensure that drainage facilities are designed and landscaped to provide an attractive appearance from adjacent residences and the street, while maintaining their effectiveness in controlling stormwater runoff.

Policy CD 9.2.1: Detention basin design should encourage and promote natural percolation of stormwater runoff and nuisance water.

Policy CD 9.2.2: Detention basins shall be designed to blend in with adjacent land uses wherever possible, through the following measures:

- a. Right-of-way parkways adjacent to detention basins shall be permanently landscaped, incorporating adjacent streetscape themes. Landscaping shall be provided between the back of sidewalk and the detention basin fencing.

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- b. Detention basins shall be surrounded with block walls where the basin abuts private property. Such walls shall match the project boundary walls and shall be of decorative materials and design.
- c. Where the frontage of the basin is along the street right-of-way, tubular steel fencing (in combination with masonry pilasters, if desired) shall be used, to allow visibility into the basin for safety purposes.
- d. The interior of the basin shall be landscaped to provide for erosion control only, in order to protect the basin's primary function of collecting and percolating stormwater runoff. No permanent irrigation system shall be allowed on the interior of the basin.

Policy CD 9.2.3: The City shall explore methods to enhance the appearance of existing highly-visible detention basins adjacent to arterial streets and highways.

Objective CD 9.3: Create and maintain places for civic and social events which are in the public realm, in order to foster civic pride and enhance a sense of community.

Policy CD 9.3.1: Within the Civic Center area, create one or more public plazas or open spaces which can accommodate civic ceremonies, street fairs, market nights, concerts, outdoor seating and eating areas, and similar outdoor events.

Policy CD 9.3.2: Enhance and develop additional parkland throughout the City with facilities to accommodate public events.

Objective CD 9.4: Clearly demonstrate the quality of development desired in Palmdale, through education and example.

Policy CD 9.4.1: Ensure that all public buildings and capital facilities constructed by the City meet the applicable design guidelines contained in this Element and other City ordinances and standards.

Policy CD 9.4.2: Use xeriscape planting designs and irrigation techniques on City projects in order to demonstrate the City's desired landscape theme.

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Policy CD 9.4.3: Provide information to developers on desired design guidelines and standards.

Objective CD 9.5: Address unmaintained properties, graffiti, litter, abandoned signs and other forms of blight which detracts from Palmdale's appearance and lifestyle.

Policy CD 9.5.1: Require compliance with City requirements for property maintenance and zoning, and provide for enforcement as needed.

Policy CD 9.5.2: Seek innovative ways to involve members of the community in programs to keep the City clean and free from blight.

SECTION 4: IMPLEMENTATION MEASURES

The City will undertake the following implementation measures in order to achieve the goals, objectives and policies outlined in the Community Design Element.

A. Zoning Ordinance

The City will update its Zoning Ordinance to incorporate development standards which implement the design guidelines contained in this Element. Adoption of the updated Zoning Ordinance is expected in 1995.

B. Downtown Revitalization Plan

The City will adopt a specific plan aimed at revitalizing the downtown core area of Palmdale. As part of this plan, specific measures for creation of public open spaces for civic events will be adopted and implemented, and special design standards for pedestrian-oriented retail uses will be included. Adoption of the Downtown Revitalization Plan is expected in 1995.

C. Engineering Design Standards

The City will revise its Engineering Design Standards to provide flexibility in street improvement design in order to accommodate rural design standards and variation in residential streetscapes, where appropriate.

D. Development Review Process

The City's Development Advisory Board will evaluate new development proposals and capital improvement projects pursuant to its established development review process, to ensure compliance with the design policies contained in this Element through site plans and conditions of approval.

E. Evaluation and Monitoring of Design Guidelines

The Planning Department will periodically review and monitor the effectiveness of the design policies and guidelines contained in the Community Design Element, and will propose modifications as needed to ensure that the guidelines meet City design goals.

Community Design Element

F. Informational Materials

The Planning Department will prepare public information materials explaining and summarizing design requirements for various development projects, and will make these materials available to developers and the general public at the department's counter and at Development Advisory Board meetings.

G. Incentives

The City will evaluate and promote the use of various incentive programs where appropriate to encourage developers to incorporate outstanding design features within their projects in conformance with the guidelines contained in this Element.

H. Coordination with the Private Sector

The City will coordinate with private businesses to pursue joint efforts to maintain, beautify, and improve properties within the City, which may include financial assistance through loan programs.

I. Funding

The City will explore and actively pursue all available funding sources for urban forestry programs, urban beautification programs, utility undergrounding programs, and other similar programs which make funds available for upgrading the appearance and livability of cities.

In addition, the City will provide funding as deemed appropriate by the City Council in the Capital Improvement Plan and annual budgets for City beautification programs, including but not limited to landscaping of major thoroughfares, City identification signage at major entry points, amenities at public buildings, and other similar measures.

J. Maintenance and Enforcement

The City will continue an active program to enforce private property maintenance, clean up illegal dumping and abandoned signs, control graffiti, and address blighted areas. In addition, the City will seek innovative ways to involve citizens in efforts to maintain and improve the appearance of the community.

K. Coordination with Other Agencies

The City will coordinate with Los Angeles County to allow flexibility in street lighting standards for rural and low-density suburban areas, where appropriate.

KEY WORDS CROSS-REFERENCE TO GOALS, POLICIES AND OBJECTIVES

Where Goals and Objectives are referenced, information on the subject is contained throughout the Goal or Objective. This Cross-Reference is intended as a general guide and is not to be construed as an all-inclusive reference source.

Key

The following letters before Goal, Objective, Policy and Program numbers indicate the element in the General Plan where you may locate the information.

C- Circulation Element
ER - Environmental Resources Element
H - Housing Element
L - Land Use Element
N - Noise
PS - Public Services Element
S - Safety Element

* Indicates cross-references to the related topics in the alphabetical listing in this Index.

Key Words

Reference

Access (Street and Driveway)	Policy C1.2.3 Policy C1.3.1 Policy C1.4.3 Policy C1.4.4
Accident Potential Zone	Policy N2.1.4
<i>See</i> * <i>Frequent Overflight Area</i> * <i>Air Force Plant 42</i>	
Active Fault Zones	Policy L.1.4.2
<i>See</i> * <i>Alquist-Priolo Special Studies Zones</i> * <i>Hazards</i> * <i>Seismic Hazards</i>	

Key Words

References

Affordable Housing	Goal H1 Goal H2
Airfield and Related Uses <i>See *Land Use Designations</i>	Policy L5.1.1
Air Pollution	Objective ER5.3 Objective ER5.5
Air Quality Standards	Goal ER5
Alquist-Priolo Special Studies Zones <i>See *Active Fault Zones</i> <i>*Hazards</i> <i>*Seismic Hazards</i>	Policy L1.4.2 Objective S1.1
Annexations	Policy L1.2.5
Arterials <i>See *Streets</i>	Policy C1.1.1 Objective C1.2 Policy C1.4.4 Objective C1.9
Antelope Valley Landfill	Policy L6.2.2 Policy L7.1.9
Backbone Infrastructure	Policy L3.4.5
Business Park Designation <i>See *Land Use Designations</i>	Policy L5.1.1
Business Park (100 acres east of the Antelope Valley Freeway, approximately 440 feet north of Avenue S, west of 5 th Street and south of Avenue R-8) Designation <i>See *Land Use Designations</i>	Policy L7.1.3

Key Words

References

Circulation

See *Streets

Code Enforcement

Objective PS5.7

Collector Streets

Objective C1.3

See *Streets

Community Commercial Designation

Policy L4.1.1

See *Land Use Designations

Commercial Manufacturing

Policy L5.1.1

See *Land Use Designations

Commercial Site Specific Criteria

Policy L4.2.8

See *Land Use Designations

Culturally Significant Resources

Goal ER7

Density

Policy L3.4.1

Policy L3.4.3

Development in Downtown Core Area

Objective L2.3

See *Land Use Designations

Development in Transitional Areas

Objective L2.4

See *Land Use Designations

Development Review

Policy N2.1.4

Policy PS1.5.1

Policy PS1.6.3

Policy PS3.1.4

Policy PS4.1.1

Policy PS5.1.3

Policy S1.2.11

Policy S2.2.2

Objective S2.5

Key Words

References

Dust Control	Objective ER5.2
Earthquakes <i>See *Active Fault Zones</i> <i>*Alquist-Priolo Special Studies Zones</i> <i>*Seismic Hazards</i>	
Education	Goal PS4
Emergency Services	Goal S3
Equal Housing	Goal H4
Equestrian Residential Designation <i>See *Land Use Designations</i>	Policy L3.1.1
Fire Protection <i>See *Hazards</i>	Objective PS5.1
Fire Risk Areas <i>See *Hazards</i>	Objective S1.3
Flood control Facilities	Goal PS3
Flood Plain Hazards <i>See *Geological Hazards</i>	Objective S1.2
Frequent Overflight Area <i>See *Air Force Plant 42</i>	Goal N2
Gateway (Pearblossom Highway and Sierra Highway) Development Standards <i>See *Land Use Designations</i>	Policy L7.1.2

Key Words

References

Geological Hazards

Goal S1

See **Earthquakes*
 **Floods*
 **Seismic Hazards*

Hazards

Goal S1

See **Active Fault Zones*
 **Alquist-Priolo Special Studies zones*
 **Fire Risk Areas*
 **Flood Control Facilities*
 **Flood Plain Hazards*
 **Seismic Hazards*

Hazardous Materials

Goal PS6
Objective S2.3

Hillside Development

See **Ridgelines*

Goal ER3
Policy L1.4.3
Policy PS7.1.1
Policy S1.1.10

Hillside Management Ordinance

See **Hillside Development*
 **Ridgelines*

Policy L3.4.1

Historical Resources

Goal ER7

Industrial Designation

Policy L5.1.1

Infrastructure

Objective PS1.1
Objective PS1.2
Objective PS1.3
Policy PS1.4.4
Policy PS1.4.7
Objective PS1.5
Policy PS1.6.1
Objective S2.1

Key Words

References

Intersection Location and Design See *Streets	Policy C1.4.5
Intersection Spacing - Residential Development See *Streets	Policy C1.2.3
Joshua Tree Woodlands See *Native and Drought Tolerant Vegetation	Policy ER2.1.5
Lake Palmdale Development Standards See *Land use Designations	Policy L7.1.1
Land, Dedications of	Objective PS7.1
Land Use Designations See Individual References: *Airfield and Related Uses *Business Park Designation *Business Park (100 acres east of the Antelope Valley Freeway, approximately 440 feet north of Avenue S, west of 5 th Street and south of Avenue R-8) Designation *Community Commercial Designation *Commercial Manufacturing *Commercial Site Specific Criteria *Development in Downtown Core Area *Development in Transitional Areas *Equestrian Residential Designation *Gateway (Pearblossom Highway and Sierra Highway) Development Standards *Industrial Designation *Lake Palmdale Development Standards *Land Use Policies (Adjacent to Airport) *Low Density Residential Designation *Manufacturing and Related Industrial Uses *Medium Residential *Mineral Resource Extraction (MRE) Designation	

Key Words

References

Land Use Designations (continued)

- **Minimum Lot Size*
- **Mixed Use-Transitional Designation*
- **Mobile Home Parks*
- **Multi-Family Residential*
- **Neighborhood Commercial*
- **Office Commercial*
- **Open Space Designation*
- **Pearblossom Highway and Sierra Highway*
- **Public Facilities Designation*
- **Regional Commercial Designation*
- **Rural Design Standards*
- **Scenic Highways*
- **Single Family Residential-1 Designation*
- **Single Family Residential-2 Designation*
- **Single Family Residential-3 Designation*
- **Special Development in Core Area of Palmdale*
- **Special Development Designations*
 - Vincent Hill*
 - Bushnell*
 - Santa Fe Hills*
 - Southwest*

Land Use Map

See **Land Use Designations*

Policy L1.1.1

Policy L1.3.1

Policy L4.1.1

Policy L6.1.1

Land Use Policies (Adjacent to Airport)

See **Land Use Designations*

Policy L1.4.4

Law Enforcement

Objectives PS5.2

Levels of Service

See **Streets*

Policy C1.4.1

Policy C1.4.2

Local Streets

See **Streets*

Objective C1.3

Key Words

References

Low Density Residential Designation <i>See *Land Use Designations</i>	Policy L3.1.1
Manufacturing and Related Industrial Uses <i>See *Land Use Designations</i>	Policy L5.1.1
Master Drainage Plan	Objective PS3.1 Policy S1.2.11
Medians <i>See *Streets</i>	Policy C1.1.10
Medium Residential <i>See *Land Use Designations</i>	Policy L3.1.1
Mineral Resources	Goal ER6 Policy L1.4.1 Policy L5.1.1
Mineral Resource Extraction (MRE)	Policy ER6.1.1 through Policy ER6.1.5
Mineral Resource Extraction (MRE) Designation <i>See *Land Use Designations</i>	Policy L5.1.1 Objective ER6.2
Minimum Lot Size <i>See *Land Use Designations</i>	Policy L3.2.4
Mixed Use-Transitional Designation <i>See *Land use Designations</i>	Policy L2.4.1
Mobile Home Parks	Housing Program H2.F Housing Program H2.G Housing Program H2.H Housing Program H2.1 Objective L3.3

Key Words

References

Multi-Family Residential <i>See *Land Use Designations</i>	Policy L3.1.1
Native and Drought Tolerant Vegetation <i>See *Joshua Tree Woodlands</i>	Policy ER4.2.1 Policy ER4.2.2
Neighborhood Commercial <i>See *Land Use Designations</i>	Policy L4.1.1
Noise Environments <i>See *65 dBA CNEL</i>	Policy N1.2.3
Office Commercial <i>See *Land Use Designations</i>	Policy L4.1.1
Open Space Designation <i>See *Land Use Designations</i>	Policy L6.1.1
Open Space	Goal ER1 Goal PS7 Policy S1.2.10
Palmdale Regional Airport	Objective C5.2
Pearblossom Highway and Sierra Highway <i>See *Land Use Designations</i>	Policy L7.1.2
Plant 42 <i>See *Air Force Plant 42</i> <i>*Accident Potential Zone</i> <i>*Frequent Overflight Area</i>	Policy N2.1.4
Private Street Standards <i>See *Streets</i>	Policy C1.4.6
Public Facilities Designation <i>See *Land Use Designations</i>	Policy L6.1.1

Key Words

References

Reclamation Plan	Policy ER6.2.3 Policy ER6.2.4
Redevelopment Agency	Housing Program H1.H Housing Program H1.1 Housing Program H1.M
Regional Commercial Designation <i>See *Land Use Designations</i>	Policy L5.1.1
Residential Neighborhoods	Objective L3.2
Ridgelines <i>See *Hillside Development</i> <i>*Hillside Management Ordinance</i>	Policy ER3.1.5
Right Turn Access - Residential Development <i>See *Streets</i>	Policy C1.2.3
Rural Design Standards <i>See *Land Use Designations</i>	Objective L3.4 Policy L4.1.2
Scenic Highways	Policy ER1.2.2
Scenic Viewsheds	Objective ER1.2
Schools <i>See *Education</i>	Goals PS4
Seismic Hazards <i>See *Active Fault Zones</i> <i>*Alquist-Priolo Special Studies Zones</i> <i>*Hazards</i>	Goal S1
Sewage <i>See *Waste</i>	Goal PS2

Key Words

References

Significant Ecological Areas	Objective ER2.1
Single Family Residential-1 Designation	Policy L3.1.1
Single Family Residential-2 Designation	Policy L3.1.1
Single Family Residential-3 Designation <i>See *Land Use Designations</i>	Policy L3.1.1
Site Design Safety Related Discussion	Objective S2.5
Site Specific Criteria - Commercial <i>See *Land Use Designations</i>	Policy L4.2.8
65 dBA CNEL <i>See *Noise</i>	Policy N1.1.2 Policy N1.1.3 Goal N2
Slopes <i>See *Hillside Development</i>	
Special Development in Core Area of Palmdale <i>See *Land use Designations</i>	Objective L2.3
Special Development Designations Vincent Hill Bushnell	Policy L7.1.5 Policy L7.1.6 Policy L7.1.7
Special Development Designations (continued) Santa Fe Hills Southwest <i>See *Land Use Designations</i>	Policy L7.1.8 Policy L7.1.9
Special Needs Housing	Goal PS5
Storm Drainage	Goal PS3

Key Words

References

Streets, Access

See **Arterials*
 **Collector Streets*
 **Intersection Location*
 **Levels of Service*
 **Local Streets*
 **Private Street Standards*
 **Right Turn Access*
 **Truck Routes*

Policy C1.2.3
Policy C1.3.1
Policy C1.4.3
Policy C1.4.4

Strip Commercial Nodes

Objective L4.2

Transportation Demand Management

Policy C2.1.1

Truck Routes

Objective C1.7

See **Streets*

Viewsheds

Policy L7.1.1

Waste (Solid and Hazardous)

Goal PS6

Water Resources

Goal ER4
Goal H6

Water Supply

Goal PS2
Goal ER4

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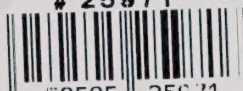
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